09/835818

Aff# 11

WEST Search History

DATE: Wednesday, August 28, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L18	l1 same l8	8	L18
L17	l1 with l8	3	L17
L16	l10 with L5	13	L16
L15	l10 wiht L5	0	L15
L14	l10 and L5	212	L14
L13	l1 same l5	1	L13
L12	l1 with l5	1	L12
L11	l1 and L10	1	L11
L10	organ preservation	554	L10
L9	l1 and l5 and L8	103	L9
L8	cell or cellular or tissue	1138401	L8
L7	l1 and L5	315	L7
L6	l1 and l4	72	L6
L5	freez$ or frozen	230572	L5
L4	cryo$	53450	L4
L3	l1 and L2	4	L3
L2	cryopreserv$ or cryoprotect$	3434	L2
L1	cyclohexanediol	4642	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. 20020068360 . 17 Apr 01. 06 Jun 02. Cyclohexanediol cryoprotectant compounds. Brockbank, Kelvin G.M., et al. 435/374; C12N005/00.

☐ 2. 6008417 . 07 Oct 98; 28 Dec 99. Process for making metabolites of lycopene. Pfander; Hanspeter, et al. 568/838;. C07C035/06.

☐ 3. H001093 . 08 Jan 90; 04 Aug 92. HCL monitoring apparatus and method for process gas streams. Huston; Gregg C.. 436/101; 422/62 422/88 422/90 436/121 436/122 436/123. G01N033/00 G01N021/00 G01N030/96.

☐ 4. 4536523 . 23 Dec 83; 20 Aug 85. Dental composite formulation from acrylate monomer and polythiol accelerator. Antonucci; Joseph M.. 523/115; 433/228.1. C08L033/08.

☑ 5. 4390632 . 14 Jul 80; 28 Jun 83. Stabilization process for biological cells and stabilized compositions thereof. Carter, II; James H.. 436/10; 435/183 436/11 436/17. G01N033/48.

☐ 6. 4094869 . 16 Jun 75; 13 Jun 78. Thermally stable, rigid, cellular isocyanurate polyurethane foams. Biranowski; Jerome B., et al. 521/118; 521/123 521/171 521/902. C08G018/14.

☐ 7. US 20020068360 A1 WO 200178505 A1 AU 200155433 A . Cryopreservation of cells involves contacting cells with cyclohexanediol compound, and subsequently reducing the temperature of cells to cryopreservation temperature. BROCKBANK, K G M, et al. A01N001/02 C12N005/00.

☐ 8. JP 2002504537 W WO 9943646 A1 ZA 9901550 A AU 9926246 A BR 9908315 A EP 1056716 A1 US 6184422 B1 CN 1291974 A KR 2001041313 A MX 2000008236 A1 . New cyclohexanediol derivatives for treatment of hyperproliferative skin diseases - such as psoriasis, basal cell carcinoma, keratosis and keratinization. BARBIER, P, et al. A61K031/045 A61K031/047 A61P017/00 A61P017/06 A61P035/00 C07C000/00 C07C035/18 C07C403/08 C07F007/18.

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Terms	Documents
l1 same l8	8

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Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. 20020068360 . 17 Apr 01. 06 Jun 02. Cyclohexanediol cryoprotectant compounds. Brockbank, Kelvin G.M., et al. 435/374; C12N005/00.

☐ 2. 20020063235 . 30 Nov 00. 30 May 02. Prevention of ice nucleation by polyglycerol. Fahy, Greg, et al. 252/70; C09K003/18.

☐ 3. 20020012901 . 17 Apr 01. 31 Jan 02. Novel warming method of cryopreserved specimens. Campbell, Lia Hanson, et al. 435/1.3; 435/325 A01N001/00 A01N001/02 C12N005/00 C12N005/02.

☐ 4. US 20020068360 A1 WO 200178505 A1 AU 200155433 A . Cryopreservation of cells involves contacting cells with cyclohexanediol compound, and subsequently reducing the temperature of cells to cryopreservation temperature. BROCKBANK, K G M, et al. A01N001/02 C12N005/00.

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Terms	Documents
l1 and L2	4

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Search Results - Record(s) 51 through 100 of 103 returned.

☐ 51. 5366986 . 06 Dec 90; 22 Nov 94. Compounds which inhibit complement and/or suppress immune activity. Sindelar; Robert D., et al. 514/374; 514/382 514/462 548/237 548/252 549/236 549/264 549/345. A61K031/42 A61K031/41 C07D307/94.

☐ 52. 5336767 . 30 Dec 92; 09 Aug 94. Total or partial esters of hyaluronic acid. della Valle; Francesco, et al. 536/55.1; 424/443. C07H005/04.

☐ 53. 5336668 . 20 Jun 91; 09 Aug 94. Esters of alginic acid. della Valle; Francesco, et al. 514/23; 424/423 424/429 424/488 424/499 514/26 514/54 514/912 536/115 536/119 536/124 536/18.7 536/3 623/6.56. A61K009/70 A61K031/725 C07H001/00.

☐ 54. 5332809 . 11 Feb 92; 26 Jul 94. Partial esters of gellan. Della Valle; Francesco, et al. 536/119; 424/401 424/443 424/488 424/500 426/658 536/115 536/18.7. C07H013/02.

☐ 55. 5264422 . 20 Jun 91; 23 Nov 93. Esters of alginic acid with steroidal alcohols. della Valle; Francesco, et al. 514/26; 424/423 424/443 424/447 514/171 514/178 514/54 536/115 536/119 536/123 536/123.1 536/3 536/5. A61K031/705 A61K031/72 C08B037/04.

☐ 56. 5250720 . 09 Mar 92; 05 Oct 93. Intermediates for preparing peptide boronic acid inhibitors of trypsin-like proteases. Kettner; Charles A., et al. 558/288; 558/289. C07F005/04.

☐ 57. 5242904 . 09 Mar 92; 07 Sep 93. Peptide boronic acid inhibitors of trypsin-like proteases. Kettner; Charles A., et al. 514/18; 514/14 514/15 514/16 514/17 530/327 530/328 530/329 530/330. A61K037/02 C07K005/10 C07K007/06 C07K007/08.

☐ 58. 5221689 . 23 Jan 92; 22 Jun 93. Prostaglandin analogues, processes for their preparation and pharmaceutical compositions containing them. Imaki; Katsuhiro, et al. 514/412; 548/452. A61K031/40 C07D209/52.

☐ 59. 5202431 . 20 Nov 91; 13 Apr 93. Partial esters of hyaluronic acid. della Valle; Francesco, et al. 536/55.1; 424/423 424/489. A61K031/70 C07G003/00 C07H001/00.

☐ 60. 5187157 . 06 Apr 88; 16 Feb 93. Peptide boronic acid inhibitors of trypsin-like proteases. Kettner; Charles A., et al. 514/18; 514/19 514/20 530/330 530/331 548/110 548/405 562/7. A61K037/02 C07K005/06 C07K005/08 C07K005/10.

☐ 61. 5173499 . 15 Apr 88; 22 Dec 92. Compounds which inhibit complement and/or suppress immune activity. Sindelar; Robert D., et al. 514/462; 514/825 549/345. A61K031/34 C07D307/94.

☐ 62. 5147861 . 18 Sep 91; 15 Sep 92. Esters of alginic acid. della Valle; Francesco, et al. 514/54; 424/401 424/422 424/423 424/429 424/443 424/447 424/488 424/499 514/23 514/912 536/115 536/119 536/3 606/231 623/6.56. A61K009/70 A61K031/215 A61K031/725.

☐ 63. 5122598 . 12 May 89; 16 Jun 92. Polysaccharide esters. della Valle; Francesco, et al. 536/20;

424/422 424/427 424/436 424/443 424/451 424/452 424/456 424/461 424/479 424/488 424/489 424/DIG.15 514/912 514/953 514/960 514/962 514/965 514/969. C08B037/08 A61K009/08 A61K009/14 A61K009/48.

☐ 64. 5109021 . 25 May 90; 28 Apr 92. Prostaglandin analogues, process for their preparation and pharmaceutical compositions containing them. Imaki; Katsuhiro, et al. 514/530; 514/573 548/452 549/465 560/116 562/498. C07C177/00 A61K031/557.

☐ 65. 5108832 . 28 Sep 90; 28 Apr 92. Flexible intumescent coating composition. Nugent, Jr.; Richard M., et al. 428/304.4; 428/305.5 428/921 521/178 521/85 521/907 521/92 523/179. B32B003/26 C09K021/14.

☐ 66. 5104904 . 23 Apr 90; 14 Apr 92. Use of aromatic petroleum oils as surfactant for polyurethane foams. Glynn; Keith T., et al. 521/99; 252/182.2 521/110 521/114 521/116 521/128 521/129 521/131 521/132 521/172. C08G018/08.

☐ 67. 5099020 . 27 Jun 90; 24 Mar 92. Barbiturate assay compositions and methods. Grote; Jonathan, et al. 530/363; 436/500 436/537 436/546 530/362 530/367 530/386 530/389.8 530/391.1 530/812 544/229 544/299 544/300 544/302 544/305 544/306. C07D239/545.

☐ 68. 5096838 . 27 Nov 89; 17 Mar 92. Barbiturate assay compositions and methods. Grote; Jonathan, et al. 436/536; 436/546 436/800 436/816. G01N033/536.

☐ 69. 5091523 . 03 Dec 90; 25 Feb 92. Mitomycin derivatives having reduced bone marrow toxicity, processes for their preparation, and the uses thereof. Talebian; Abdolhossen, et al. 536/17.3; 514/908 536/17.4 536/29.11 536/43 548/422. A61K031/40 A61K021/00 C07D487/14.

☐ 70. 5070119 . 11 Mar 91; 03 Dec 91. Flexible intumescent coating composition. Nugent, Jr.; Richard M., et al. 523/179; 521/178 521/85 521/907 521/92. C09K021/14 C08J009/02.

☐ 71. 5014207 . 21 Apr 89; 07 May 91. Solid imaging system. Lawton; John A.. 700/120; 219/121.73 219/121.8 427/512. G06F015/62 B23K026/02.

☐ 72. 5006351 . 27 Jun 89; 09 Apr 91. Cyclohexyl diol diesters as low calorie fat mimetics. Klemann; Lawrence P., et al. 426/611; 426/601 426/604 426/804 554/223 554/224 554/228 560/231. A23D007/00.

☐ 73. 4965353 . 19 Apr 89; 23 Oct 90. Polysaccharide esters and their salts. della Valle; Francesco, et al. 536/55.1; 424/423 424/443 424/489 424/490 514/54 514/969. A61K031/70 C07H001/00 C07G003/00.

☐ 74. 4957744 . 13 Oct 87; 18 Sep 90. Cross-linked esters of hyaluronic acid. della Valle; Francesco, et al. 424/401; 424/423 424/443 424/451 424/489 512/5 514/54 514/844 514/880 536/55.1. A61K031/70 C07G003/00 C07H001/00.

☐ 75. 4935446 . 30 Mar 89; 19 Jun 90. Prostaglandin analogues, process for their preparation and pharmaceutical compositions containing them. Imaki; Katsuhiro, et al. 514/530; 514/573 536/46 560/118 562/500. C07C177/00 A61K031/557.

☐ 76. 4851521 . 02 Jul 86; 25 Jul 89. Esters of hyaluronic acid. della Valle; Francesco, et al. 536/55.1; 424/423 424/443 424/489 514/54 514/844 514/880. A61K031/70 C07G003/00 C07H001/00.

☐ 77. 4812475 . 25 Nov 86; 14 Mar 89. New method of treatment using prostaglandin analogues. Masuda; Yoshinobu. 514/412; 987/157. A61K031/40.

☐ 78. 4722803 . 29 Oct 85; 02 Feb 88. Self-compatibilizing polyester polyol blends based on dimethyl terephthalate residues. Magnus; George, et al. 252/182.25; 252/182.27 252/182.28 521/173 528/74.5 528/77 528/79 560/59 560/91 560/92 568/59. C08G018/42.

☐ 79. 4670458 . 31 Jan 86; 02 Jun 87. Hydroxylated 1,2-diaminocyclohexane platinum complexes. Hlavka; Joseph J., et al. 514/492; 556/137 987/11. C07F015/00.

☐ 80. 4654377 . 28 Apr 86; 31 Mar 87. Process for the preparation of low molecular weight polyhydroxyl compounds. Mohring; Edgar, et al. 521/170; 521/158 528/306 528/308 528/308.6 528/405 528/85 560/198 560/263 568/618 568/619 568/620 568/623 568/624. C08G018/14.

☐ 81. 4644048 . 12 Jul 85; 17 Feb 87. Self-compatibilizing phthalate-based polyester polyols. Magnus; George, et al. 528/176; 528/194 528/195 528/288 528/291 528/295.3 528/295.5 528/301 528/304 528/305 528/308 528/308.7. C08G063/18.

☐ 82. 4644047 . 15 Jul 85; 17 Feb 87. Self-compatibilizing phthalate-based polyester polyols. Wood; Robert J.. 528/176; 528/194 528/195 528/288 528/291. C08L067/02.

☐ 83. 4608446 . 25 May 82; 26 Aug 86. Process for the preparation of low molecular weight polyhydroxyl compounds. Mohring; Edgar, et al. 568/863; 521/155 560/263 568/682. C07C029/132 C07C029/136 C07C031/18.

☐ 84. 4608432 . 23 Sep 85; 26 Aug 86. Self-compatibilizing polyester polyol blends based on polyalkylene terephthalate. Magnus; George, et al. 528/274; 521/176 525/437. C08G063/04 C08G063/22.

☐ 85. 4511682 . 29 May 84; 16 Apr 85. Water-dispersible coating compositions and process. Mayer; Walter P., et al. 523/402; 523/423 524/505 524/539 524/590 525/109 525/110 525/117 525/119 525/170 525/185. C09D003/52 C09D003/49 C09D003/54 C09D003/58.

☐ 86. 4426449 . 14 Dec 81; 17 Jan 84. Method for producing vicinal dihalogenated products. Geigert; John, et al. 435/155; 435/156 435/166 435/189 435/911. C12P007/02.

☑ 87. 4390632 . 14 Jul 80; 28 Jun 83. Stabilization process for biological cells and stabilized compositions thereof. Carter, II; James H.. 436/10; 435/183 436/11 436/17. G01N033/48.

☐ 88. 4374953 . 19 Apr 82; 22 Feb 83. Method for preparing polyacetals and polyketals by emulsion polymerization. Chou; Yungnien J., et al. 525/153; 525/154 528/222 528/223 528/224 528/232 528/242 528/243. C08F008/28 C08L061/00.

☐ 89. 4355154 . 06 Oct 81; 19 Oct 82. Method for preparing condensation polymers by emulsion polymerization. Saam; John C., et al. 528/274; 528/288 528/293. C08G063/22.

☐ 90. 4180655 . 20 Jan 78; 25 Dec 79. Nitrosourea derivatives. Suami; Tetsuo, et al. 536/13.5; 514/908 536/53 564/33 564/57. C07H015/20.

☐ 91. 4122038 . 27 Jul 77; 24 Oct 78. Catalyst systems containing dimethylamino ether mono-ols for polyurethane foam formation. Sandner; Michael Ray, et al. 502/155; 502/167. B01J027/24 B01J027/26.

☐ 92. 4115321 . 04 Apr 77; 19 Sep 78. Catalyst systems containing N,N-dimethylaminoalkoxypropionitriles for polyurethane foam formulation. Sandner; Michael Ray, et al. 502/167; 521/115 521/127 521/904. B01J031/04 B01J031/02 B01J027/22 C08G018/14.

☐ 93. 4086415 . 30 Jul 75; 25 Apr 78. Nitrosourea derivatives of glycosides. Suami; Tetsuo, et al. 536/29.12; 514/908 536/13.5 536/17.2 536/17.5 536/53. C07H011/02.

☐ 94. 4053590 . 12 Oct 76; 11 Oct 77. Compositions of matter comprising macromolecular hemoglobin. Bonsen; Pieter, et al. 514/6; 527/201 527/204 527/205 530/385. C07C103/52 A61K037/00.

☐ 95. 4049931 . 29 May 75; 20 Sep 77. Catalyst systems containing dimethylamino ether mono-ols for polyurethane foam formation. Sandner; Michael Ray, et al. 521/127; 502/167 521/129. B01J027/24 B01J031/12 C08G018/18.

☐ 96. 4033911 . 24 Jun 76; 05 Jul 77. Process for catalyzing polyurethane foam formation using N,N-dimethyl-aminoalkoxy-propionitriles. Sandner; Michael Ray, et al. 521/129; 521/127 521/174 528/76. C08G018/14.

☐ 97. 4001401 . 27 Feb 75; 04 Jan 77. Blood substitute and blood plasma expander comprising polyhemoglobin. Bonsen; Pieter, et al. 514/6; 530/385. A61K037/04 A61K035/14.

☐ 98. 4001200 . 27 Feb 75; 04 Jan 77. Novel polymerized, cross-linked, stromal-free hemoglobin. Bonsen; Pieter, et al. 530/385; 436/15. C07C103/52 A61K037/00.

☐ 99. 3871885 . 20 Oct 72; 18 Mar 75. CRYSTALLINE PHOTO-POLYMERIZABLE COMPOSITION. Hertler; Walter Raymond. 430/281.1; 430/271.1 430/283.1 430/916 430/923 522/37 522/39 522/40 522/43 522/46 522/6 522/63 522/9. G03c001/68 G03c001/70.

☐ 100. 3762940 . 09 Sep 71; 02 Oct 73. HEXA(ALKOXYMETHYL)MELAMINE-MODIFIED HYDROXYLATED FLUOROPLYMER COATED ARTICLES. Bechtold; Max F.. 428/412; 427/385.5 427/388.2 427/393.5 428/421 428/461 428/483. B32b015/08 B32b027/08.

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Search Results - Record(s) 101 through 103 of 103 returned.

☐ 101. 3669913 . 23 Nov 70; 13 Jun 72. SOLUTION COMPOSITIONS OF SILOXANE-OXYALKYLENE COPOLYMERS AND AMINE CATALYSTS AND USE FOR MANUFACTURE OF POLYURETHANE FOAM. Morehouse; Edward Lewis. 521/112; 516/76 516/DIG.7 521/116 521/174. C08g022/46 C08g031/32 C09k003/00.

☐ 102. 3644168 . 12 Jun 70; 22 Feb 72. VARIED DENSITY POLYISOCYANURATE FOAM STRUCTURE. Bonk; Henry W., et al. 442/213; 264/41 264/45.3 264/45.5 264/46.7 273/DIG.8 428/116 428/315.7 428/318.8 428/422.8 428/73 473/120 473/567 521/114 521/134 521/156 521/51. B32b003/26 B32b005/14 B29d027/00.

☐ 103. US 20020068360 A1 WO 200178505 A1 AU 200155433 A . Cryopreservation of cells involves contacting cells with cyclohexanediol compound, and subsequently reducing the temperature of cells to cryopreservation temperature. BROCKBANK, K G M, et al. A01N001/02 C12N005/00.

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09/835818
AH #11

=> s 13cyclohexanediol and 14cyclohexanediol
L1 0 13CYCLOHEXANEDIOL AND 14CYCLOHEXANEDIOL

=> s cyclohexanediol
L2 2514 CYCLOHEXANEDIOL

=> s "1,3"
4 FILES SEARCHED...
L3 1847673 "1,3"

=> s "1,4"

4 FILES SEARCHED...
L4 1415573 "1,4"

=> s l3 and l4

L5 162390 L3 AND L4

=> s l2 and l5

L6 444 L2 AND L5

=> s freez? or preserv? or cryo?
L7 846158 FREEZ? OR PRESERV? OR CRYO?

=> s l6 and l7
L8 5 L6 AND L7

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 3 DUP REM L8 (2 DUPLICATES REMOVED)

=> s l9 ibib abs 1-3
MISSING OPERATOR L9 IBIB
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> d l9 ibib abs 1-3

L9 ANSWER 1 OF 3 WPIDS (C) 2002 THOMSON DERWENT
DUPLICATE 1
ACCESSION NUMBER: 2002-089629 [12] WPIDS
DOC. NO. CPI: C2002-027553
TITLE: ***Cryopreservation*** of cells involves contacting cells with ***cyclohexanediol*** compound, and subsequently reducing the temperature of cells to ***cryopreservation*** temperature.
DERWENT CLASS: B04 D22 E15
INVENTOR(S): BROCKBANK, K G M; CAMPBELL, L H; TAYLOR, M J
PATENT ASSIGNEE(S): (ORGA-N) ORGAN RECOVERY SYSTEMS INC; (BROC-I) BROCKBANK K G M; (CAMP-I) CAMPBELL L H; (TAYL-I) TAYLOR M J
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001078505	A1	20011025	(200212)*	EN	20

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2001055433 A 20011030 (200219)
US 2002068360 A1 20020606 (200241)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001078505	A1	WO 2001-US12465	20010417
AU 2001055433	A	AU 2001-55433	20010417
US 2002068360	A1 Provisional	US 2000-197669P	20000417
		US 2001-835818	20010417

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001055433	A Based on	WO 200178505

PRIORITY APPLN. INFO: US 2000-197669P 20000417; US 2001-835818 20010417
AN 2002-089629 [12] WPIDS
AB WO 200178505 A UPAB: 20020221
NOVELTY - Cells are ***cryopreserved*** by contacting the cells with a ***cryopreservation*** composition containing ***cyclohexanediol***
(CHD) compound, and subsequently reducing the temperature of the cells to
a ***cryopreservation*** temperature.
USE - For ***cryopreservation*** of cells.
ADVANTAGE - The method increases cell viability upon warming from a
frozen state.
Dwg.0/5

L9 ANSWER 2 OF 3 WPIDS (C) 2002 THOMSON DERWENT
DUPLICATE 2
ACCESSION NUMBER: 2000-317282 [27] WPIDS
CROSS REFERENCE: 2000-303114 [24]
DOC. NO. CPI: C2000-095882
TITLE: New ***cryopreservative*** solutions, useful for ***preserving*** biological samples such as cells, embryos, tissues, organs and animals.
DERWENT CLASS: A96 B04 D16 D22
INVENTOR(S): FAHY, G M; WOWK, B
PATENT ASSIGNEE(S): (TWOO-N) 21ST CENTURY MEDICINE INC; (FAHY-I) FAHY G M; (WOWK-I) WOWK B
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000016618	A1	20000330	(200027)*	EN	46

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
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AU 2000010939 A 20000410 (200035)
EP 1115281 A1 20010718 (200142) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL RO SI
US 6395467 B1 20020528 (200243)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000016618	A1	WO 1999-US21736	19990921
AU 2000010939	A	AU 2000-10939	19990921
EP 1115281	A1	EP 1999-954636	19990921
		WO 1999-US21736	19990921
US 6395467	B1 Provisional	US 1998-101194P	19980921
	Provisional	US 1999-127158P	19990331
	Provisional	US 1999-128142P	19990407
	Provisional	US 1999-143587P	19990713
		US 1999-400793	19990921

FILING DETAILS:

PATENT NO KIND PATENT NO

AU 2000010939 A Based on WO 200016618
EP 1115281 A1 Based on WO 200016618

PRIORITY APPLN. INFO: US 1999-143587P 19990713; US 1998-101194P
19980921; US 1999-127158P 19990331; US
1999-128142P 19990407; US 1999-400793 19990921
AN 2000-317282 [27] WPIDS
CR 2000-303114 [24]
AB WO 200016618 A UPAB: 20020709
NOVELTY - New ***cryopreservation*** solutions are obtained by changing the components of solutions and determining the effect on toxicity, vitrification and ability to resist devitrification.
DETAILED DESCRIPTION - A novel solution for ***cryopreservation*** of biological samples comprises at least one ***cryoprotective*** agent for which qv is between 1 and 2, where the total concentration of the ***cryoprotective*** agent is between 5 and 150 % of its Cv; and where the toxicity of the solution for ***cryopreservation*** causes at most 50% reduction in viability as measured in a kidney slice assay.
qv = the moles of water per mole of polar group at Cv;
Cv = the concentration needed to vitrify 5-10 ml of the solution at a cooling rate of 10 deg. C/minute.
INDEPENDENT CLAIMS are also included for:
(1) a method for producing optimal solutions for vitrification comprising: (a) selecting dimethylsulfoxide and formamide in a molar ratio of 1.1-0.8 and at a total concentration of 30-45% w/v; (b) selecting an additional penetrating ***cryoprotective*** whose qv is below 2; (c) adding the additional penetrating ***cryoprotective*** agent to the dimethylsulfoxide and formamide in varying concentrations; (d) cooling the resulting mixtures so as to determine the concentration of the additional ***cryoprotective*** agent to vitrify the solution; (e) subtracting 2-6% w/v of the additional ***cryoprotective*** agent; (f) replacing the 2-6% w/v of subtracted additional ***cryoprotective*** agent with 2-8% w/v non-penetrating agent; and (g) adding a fourth penetrating ***cryoprotective*** agent if the solution does not vitrify to restore the solution to its Cv; (h) exposing the biological system to the discovered vitrification solution with or without subsequent vitrification; and (i) testing the biological sample for viability;
(2) a method for optimizing the ***freezing*** of biological systems comprising: (a) selecting an optimum vitrification solution as in (1); (b) exposing the biological system to a dilution of the vitrification solution yielding a final concentration of penetrating agent of 2-35% w/v, or of 0.2-4M; and (c) cooling the system;
(3) a ***cryoprotectant*** solution comprising dimethyl sulfoxide, an amide or a combination of amides, and at least one penetrating ***cryoprotective*** chemical where the qv of the solution in aqueous solution is below 1.9 and where the toxicity of the solution at its qv is less than the toxicity of VS41A;
(4) a ***cryoprotective*** solution comprising dimethyl sulfoxide and at least 2 penetrating ***cryoprotective*** chemicals where the qv values of the penetrating ***cryoprotective*** chemicals in aqueous solution are below 1.9 for each ***cryoprotective*** chemical, or where the vitrification to a cooling rate of approx. 30 deg. C/minute or less, and where the ***cryoprotective*** solution is less toxic than VS41A;
(5) a vitrification solution comprising dimethyl sulfoxide, an amide or combination of amides, and at most 16% w/v 1,2-propanediol;
(6) a ***cryoprotectant*** solution having a qv of at most 1.9;
(7) a method of ***preserving*** a living system by supercooling, comprising: (a) distributing through the system a non-toxic amount of polyvinyl alcohol, at a concentration of 0.01-6% w/v, in combination with a concentration of ***cryoprotectant*** to allow supercooling of the living system at the desired storage temperature, which concentration of ***cryoprotectant*** may range from 0-60% w/v, at a temperature ranging from -20 to 37 deg. C; (b) cooling the living system to the storage temperature, ranging from 0 to -100 deg. C; (c) storing the system; (d) warming the system back to -20 to 37 deg. C; and (e) removing the ***cryoprotectant*** and polyvinyl alcohol;
(8) a ***cryoprotectant*** solution comprising a concentration of urea to eliminate devitrification at a warming rate of 70 deg. C/minute or less when the solution is at its Cv;
(9) a method for composing vitrification solutions containing non-penetrating high molecular weight polymers (over 11000 daltons in mass), comprising: (a) subtracting 1-7% of the penetrating ***cryoprotectant*** that would otherwise be needed to vitrify; and (b) replacing this penetrating ***cryoprotectant*** with 2-8% w/v of the high molecular weight polymer;
(10) a method for selecting good candidate ***cryoprotectant*** solutions from poor candidate solutions comprising: (a) determining the total concentrations of the candidate solutions that are needed to vitrify; (b) determining the qv of the solutions; (c) ranking the solutions based on their qv values; and (d) preferentially testing solutions having the lower qv values.
USE - The solutions can be used for ***preserving*** biological samples, e.g. cells, embryos, tissues, organs or animals (claimed). They can also be used for the ***cryopreservation*** of proteins, organelles, cell extracts, blood vessels, artificial or engineered cells, tissues, blood vessels, organs or organoids, or other biological systems by vitrification, ***freezing*** or other means.
ADVANTAGE - The solutions can provide for ***cryoprotection*** while minimizing toxicity without weakening their ability to vitrify and to resist devitrification.
Dwg.0/10

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1967:443383 HCAPLUS
DOCUMENT NUMBER: 67:43383
TITLE: Synthesis of esters of .alpha.,.alpha.-dimethyl alkanoic acids
AUTHOR(S): Zharova, E. Ya.; Puzitskii, K. V.; Rapoport, I. B.; Eidus, Ya. T.; Velizar'eva, N. I.
SOURCE: Neftekhimiya (1967), 7(1), 92-6
CODEN: NEFTAH
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Neo acids (.alpha.,.alpha.-dimethyl acids) were prepd. by carboxylation of olefins or monovalent satd. alcs. with CO at 40.degree./30-50 atm. in the presence of H2SO4. Homologs C13 (b17 165-200.degree.) and C16 (b10 165-98.degree.) were prepd. from tetramers or pentamers of propylene. Neo acids were then converted to the corresponding acid chlorides in 80-90% yield by adding excess SO2Cl2 dropwise at 76-9.degree.. The prepd. neo acids have the following b.p./mm., d20, and n20D: C5, 47-9.degree./10, 0.9676, 1.4312; C8, 57-8.degree./10, 0.9571, 1.4349; C9, 74-6.degree./10, 0.9497, -; C10, 90-1.5.degree./10, 0.9435, 1.4422; C11, 125-6.degree./21, 0.9347, 1.4443. Alcs. were acylated with acid chlorides at 50-100.degree., HCl was removed at 100.degree. with N, the products were washed with NaOH and Na2CO3 solns., then with water, and fractionated.
The yields were 85-95% with respect to acid chloride and 70-90% with respect to neo acid. Crude ***1*** , ***3*** - ***cyclohexanediol*** esters contain monoesters and 65% diesters. Monoesters, ***freezing*** between -63 and -49.degree., have the following b.p. at 1-2 mm., n20D, and viscosity at 50.degree. in centistokes: C7, 105-68.degree., 1.4539, 8.2; C8, 120-80.degree., 1.4572, 6.4; C9, 135-92.degree., 1.4612, -; C10, 137-98.degree., 1.4608, 10.2; C11, 106-209.degree., 1.4612, 10.0. Analogously, the same values of diesters ***freezing*** between -46 and -40.degree. are as follows: C7, 168-70.degree., 1.4535, 9.5; C8, 180-1.degree., 1.4549, 11.2; C9, 192-4.degree., 1.4579, 15.9; C10, 198-200.degree., 1.4587, 21.8; C11, 209-11.degree., 1.4600, 24.4. These characteristics are further given for the esters of neo acids and polyols: C8, (CH2)6(OH)2 178-80.degree., 1.4430, 7.0; C7, (CH2)10(OH)2 192-4.degree., 1.4452, 8.6; C8, (CH2)10(OH)2 202-5.degree., 1.4481, 10.0; C7, trimethylolpropane, 213-24.degree., 1.4490-1.4509, 18.9-22.9. Diol esters ***freeze*** at the temp. between -63 and -69.degree., the triol ester at -45.degree.. The esters of 2-ethyl-1-hexanol and neo acids (***freezing*** at -67.degree. or lower) have the following characteristics (ordered in the above sequence): C7, 112-14.degree., 1.4330, 2.0; C9, 114-16.degree., 1.4365, 2.4; C13, 154-60.degree., 1.4460, 5.7; C16, 156-66.degree., 1.4510, 7.0. Mixts. of esters of C7 neo acid and 2-ethyl-1-hexanol and ***1*** , ***3*** - ***cyclohexanediol*** have improved phys. properties. Thus, the mixt. of these esters in the ratio ***1*** : ***4*** ***freezes*** at -63.degree. and has visocisity 6.06 centistokes at 50.degree..

=> d his

(FILE 'HOME' ENTERED AT 12:33:13 ON 29 AUG 2002)

FILE 'BIOSIS, EMBASE, MEDLINE, WPIDS, HCAPLUS' ENTERED AT 12:33:22 ON 29 AUG 2002
L1 0 S 13CYCLOHEXANEDIOL AND 14CYCLOHEXANEDIOL
L2 2514 S CYCLOHEXANEDIOL
L3 1847673 S "1,3"
L4 1415573 S "1,4"
L5 162390 S L3 AND L4
L6 444 S L2 AND L5
L7 846158 S FREEZ? OR PRESERV? OR CRYO?
L8 5 S L6 AND L7
L9 3 DUP REM L8 (2 DUPLICATES REMOVED)

=> s cell or cells or cellular or tissue?
2 FILES SEARCHED...
L10 11943103 CELL OR CELLS OR CELLULAR OR TISSUE?

=> s l6 and l10

L11 16 L6 AND L10

=> s l2 and l10

L12 85 L2 AND L10

=> s l2 and l7

L13 15 L2 AND L7

=> s l11 or l12 or l13
L14 94 L11 OR L12 OR L13

=> dup rem l14
PROCESSING COMPLETED FOR L14
L15 74 DUP REM L14 (20 DUPLICATES REMOVED)

=> s l15 and py<2000
1 FILES SEARCHED...
3 FILES SEARCHED...
4 FILES SEARCHED...
L16 60 L15 AND PY<2000

=> dup rem l11

PROCESSING COMPLETED FOR L11
L17 10 DUP REM L11 (6 DUPLICATES REMOVED)

=> d l8 ibib abs 1-10

L8 ANSWER 1 OF 5 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-089629 [12] WPIDS
DOC. NO. CPI: C2002-027553
TITLE: ***Cryopreservation*** of cells involves contacting cells with ***cyclohexanediol*** compound, and subsequently reducing the temperature of cells to ***cryopreservation*** temperature.
DERWENT CLASS: B04 D22 E15
INVENTOR(S): BROCKBANK, K G M; CAMPBELL, L H; TAYLOR, M J
PATENT ASSIGNEE(S): (ORGA-N) ORGAN RECOVERY SYSTEMS INC; (BROC-I) BROCKBANK K G M; (CAMP-I) CAMPBELL L H; (TAYL-I) TAYLOR M J
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001078505	A1	20011025	(200212)*	EN	20

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2001055433 A 20011030 (200219)
US 2002068360 A1 20020606 (200241)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001078505	A1	WO 2001-US12465	20010417
AU 2001055433	A	AU 2001-55433	20010417
US 2002068360	A1 Provisional	US 2000-197669P	20000417
		US 2001-835818	20010417

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001055433	A Based on	WO 200178505

PRIORITY APPLN. INFO: US 2000-197669P 20000417; US 2001-835818 20010417
AN 2002-089629 [12] WPIDS
AB WO 200178505 A UPAB: 20020221
NOVELTY - Cells are ***cryopreserved*** by contacting the cells with a ***cryopreservation*** composition containing ***cyclohexanediol***
(CHD) compound, and subsequently reducing the temperature of the cells to a ***cryopreservation*** temperature.
USE - For ***cryopreservation*** of cells.
ADVANTAGE - The method increases cell viability upon warming from a frozen state.
Dwg.0/5

L8 ANSWER 2 OF 5 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-317282 [27] WPIDS
CROSS REFERENCE: 2000-303114 [24]
DOC. NO. CPI: C2000-095882
TITLE: New ***cryopreservative*** solutions, useful for ***preserving*** biological samples such as cells, embryos, tissues, organs and animals.
DERWENT CLASS: A96 B04 D16 D22
INVENTOR(S): FAHY, G M; WOWK, B
PATENT ASSIGNEE(S): (TWOO-N) 21ST CENTURY MEDICINE INC; (FAHY-I) FAHY G M; (WOWK-I) WOWK B
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000016618	A1	20000330	(200027)*	EN	46

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000010939 A 20000410 (200035)
EP 1115281 A1 20010718 (200142) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL RO SI
US 6395467 B1 20020528 (200243)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 2000016618 A1 WO 1999-US21736 19990921
AU 2000010939 A AU 2000-10939 19990921
EP 1115281 A1 EP 1999-954636 19990921
WO 1999-US21736 19990921
US 6395467 B1 Provisional US 1998-101194P 19980921
Provisional US 1999-127158P 19990331
Provisional US 1999-128142P 19990407
Provisional US 1999-143587P 19990713
US 1999-400793 19990921

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000010939 A	Based on	WO 200016618
EP 1115281 A1	Based on	WO 200016618

PRIORITY APPLN. INFO: US 1999-143587P 19990713; US 1998-101194P
19980921; US 1999-127158P 19990331; US
1999-128142P 19990407; US 1999-400793 19990921
AN 2000-317282 [27] WPIDS
CR 2000-303114 [24]
AB WO 200016618 A UPAB: 20020709
NOVELTY - New ***cryopreservation*** solutions are obtained by changing the components of solutions and determining the effect on toxicity, vitrification and ability to resist devitrification.

DETAILED DESCRIPTION - A novel solution for ***cryopreservation*** of biological samples comprises at least one ***cryoprotective*** agent for which qv is between 1 and 2, where the total concentration of the ***cryoprotective*** agent is between 5 and 150 % of its Cv; and where the toxicity of the solution for ***cryopreservation*** causes at most 50% reduction in viability as measured in a kidney slice assay.

qv = the moles of water per mole of polar group at Cv;

Cv = the concentration needed to vitrify 5-10 ml of the solution at a cooling rate of 10 deg. C/minute.

INDEPENDENT CLAIMS are also included for:

(1) a method for producing optimal solutions for vitrification comprising: (a) selecting dimethylsulfoxide and formamide in a molar ratio of 1.1-0.8 and at a total concentration of 30-45% w/v; (b) selecting an additional penetrating ***cryoprotective*** whose qv is below 2; (c) adding the additional penetrating ***cryoprotective*** agent to the dimethylsulfoxide and formamide in varying concentrations; (d) cooling the resulting mixtures so as to determine the concentration of the additional ***cryoprotective*** agent to vitrify the solution; (e) subtracting 2-6% w/v of the additional ***cryoprotective*** agent; (f) replacing the 2-6% w/v of subtracted additional ***cryoprotective*** agent with 2-8% w/v non-penetrating agent; and (g) adding a fourth penetrating ***cryoprotective*** agent if the solution does not vitrify to restore the solution to its Cv; (h) exposing the biological system to the discovered vitrification solution with or without subsequent vitrification; and (i) testing the biological sample for viability;

(2) a method for optimizing the ***freezing*** of biological systems comprising: (a) selecting an optimum vitrification solution as in (1); (b) exposing the biological system to a dilution of the vitrification solution yielding a final concentration of penetrating agent of 2-35% w/v, or of 0.2-4M; and (c) cooling the system;

(3) a ***cryoprotectant*** solution comprising dimethyl sulfoxide, an amide or a combination of amides, and at least one penetrating ***cryoprotective*** chemical where the qv of the solution in aqueous solution is below 1.9 and where the toxicity of the solution at its qv is less than the toxicity of VS41A;

(4) a ***cryoprotective*** solution comprising dimethyl sulfoxide and at least 2 penetrating ***cryoprotective*** chemicals where the qv values of the penetrating ***cryoprotective*** chemicals in aqueous solution are below 1.9 for each ***cryoprotective*** chemical, or where the vitrification to a cooling rate of approx. 30 deg. C/minute or less, and where the ***cryoprotective*** solution is less toxic than VS41A;

(5) a vitrification solution comprising dimethyl sulfoxide, an amide or combination of amides, and at most 16% w/v 1,2-propanediol;

(6) a ***cryoprotectant*** solution having a qv of at most 1.9;

(7) a method of ***preserving*** a living system by supercooling, comprising: (a) distributing through the system a non-toxic amount of polyvinyl alcohol, at a concentration of 0.01-6% w/v, in combination with a concentration of ***cryoprotectant*** to allow supercooling of the living system at the desired storage temperature, which concentration of ***cryoprotectant*** may range from 0-60% w/v, at a temperature ranging from -20 to 37 deg. C; (b) cooling the living system to the storage temperature, ranging from 0 to -100 deg. C; (c) storing the system; (d) warming the system back to -20 to 37 deg. C; and (e) removing the ***cryoprotectant*** and polyvinyl alcohol;

(8) a ***cryoprotectant*** solution comprising a concentration of urea to eliminate devitrification at a warming rate of 70 deg. C/minute or less when the solution is at its Cv;

(9) a method for composing vitrification solutions containing non-penetrating high molecular weight polymers (over 11000 daltons in mass), comprising: (a) subtracting 1-7% of the penetrating ***cryoprotectant*** that would otherwise be needed to vitrify; and (b) replacing this penetrating ***cryoprotectant*** with 2-8% w/v of the high molecular weight polymer;

(10) a method for selecting good candidate ***cryoprotectant*** solutions from poor candidate solutions comprising: (a) determining the total concentrations of the candidate solutions that are needed to vitrify; (b) determining the qv of the solutions; (c) ranking the solutions based on their qv values; and (d) preferentially testing solutions having the lower qv values.

USE - The solutions can be used for ***preserving*** biological samples, e.g. cells, embryos, tissues, organs or animals (claimed). They can also be used for the ***cryopreservation*** of proteins, organelles, cell extracts, blood vessels, artificial or engineered cells, tissues, blood vessels, organs or organoids, or other biological systems by vitrification, ***freezing*** or other means.

ADVANTAGE - The solutions can provide for ***cryoprotection*** while minimizing toxicity without weakening their ability to vitrify and to resist devitrification.

Dwg.0/10

L8 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:780597 HCAPLUS
DOCUMENT NUMBER: 135:328945
TITLE: Cyclohexanediols as ***cryoprotectant*** compounds
INVENTOR(S): Brockbank, Kelvin G. M.; Taylor, Michael J.; Campbell, Lia Hanson
PATENT ASSIGNEE(S): Organ Recovery Systems, Inc., USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001078505	A1	20011025	WO 2001-US12465	20010417
US 2002068360	A1	20020606	US 2001-835818	20010417

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-197669P P 20000417
AB A method of ***cryopreserving*** cells includes bringing the cells into contact with a ***cryopreservation*** compn. contg. at least one ***cyclohexanediol*** compd., and subsequently reducing the temp. of the cells to a ***cryopreservation*** temp. The at least one ***cyclohexanediol*** compd. is preferably the cis or trans forms of ***1*** , ***3*** - ***cyclohexanediol*** or ***1*** , ***4*** - ***cyclohexanediol*** , and racemic mixts. thereof. A preferred ***cryopreservation*** compn. includes the at least one

cyclohexanediol compd. and at least one addnl. ***cryoprotectant*** compd. The viability of porcine heart valve leaflets stored at -135.degree. in presence of ***1*** , ***3*** - ***cyclohexanediol*** or ***1*** , ***4*** - ***cyclohexanediol*** was shown.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:209818 HCAPLUS
DOCUMENT NUMBER: 132:255981
TITLE: Improved ***cryoprotectant*** solutions
INVENTOR(S): Wowk, Brian; Fahy, Gregory M.
PATENT ASSIGNEE(S): 21st Century Medicine, Inc., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000016618	A1	20000330	WO 1999-US21736	19990921
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2000016619	A1	20000330	WO 1999-US21967	19990921
W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9964992	A1	20000410	AU 1999-64992	19990921
EP 1115281	A1	20010718	EP 1999-954636	19990921
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO				
US 6391224	B1	20020521	US 1999-400791	19990921
US 6395467	B1	20020528	US 1999-400793	19990921

PRIORITY APPLN. INFO.: US 1998-101194P P 19980921
US 1999-127158P P 19990331
US 1999-128142P P 19990407
US 1999-143587P P 19990713
WO 1999-US21736 W 19990921
WO 1999-US21967 W 19990921

AB Surprising new combinations of previously-known and novel ***cryoprotectants*** are provided that yield superior recovery of function and viability of living systems after exposure to and removal from said systems. These and related combinations are useful for ***cryopreservation*** by vitrification, ***freezing*** , supercooling, f.p. depression, or cold storage. Contrary to current opinion, ideal solns. for ***cryopreservation*** are those that vitrify "poorly" (i.e., at higher rather than at lower concns.). By using relatively "poor" vitrifiers, the water content of the soln. is reduced at the concn. needed to vitrify, but the water availability within the soln. is believed to be paradoxically increased, thereby increasing viability. A novel method for understanding and predicting non-specific ***cryoprotectant*** toxicity is provided based on a new definition of ***cryoprotectant*** "concn.", which is the no. of water mols./polar group on penetrating ***cryoprotectants*** . Compns. are provided that vitrify at relatively high concns., yet surprisingly also devitrify slowly on warming. Databases of novel vitrification/devitrification and toxicity data are provided that allow the ordinary practitioner of the art to select specific solns. or obvious soln. variants to meet the user's specific ***cryopreservation*** needs. The addn. of ethylene glycol to the ***cryoprotectant*** solns. damaged or killed only 10% corneal endothelial cells, whereas without ethylene glycol 20% of the cells were killed.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1967:443383 HCAPLUS
DOCUMENT NUMBER: 67:43383
TITLE: Synthesis of esters of .alpha.,.alpha.-dimethyl alkanoic acids
AUTHOR(S): Zharova, E. Ya.; Puzitskii, K. V.; Rapoport, I. B.; Eidus, Ya. T.; Velizar'eva, N. I.
SOURCE: Neftekhimiya (1967), 7(1), 92-6
CODEN: NEFTAH
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Neo acids (.alpha.,.alpha.-dimethyl acids) were prepd. by carboxylation of olefins or monovalent satd. alcs. with CO at 40.degree./30-50 atm. in the presence of H2SO4. Homologs C13 (b17 165-200.degree.) and C16 (b10 165-98.degree.) were prepd. from tetramers or pentamers of propylene. Neo acids were then converted to the corresponding acid chlorides in 80-90% yield by adding excess SO2Cl2 dropwise at 76-9.degree.. The prepd. neo acids have the following b.p./mm., d20, and n20D: C5, 47-9.degree./10, 0.9676, 1.4312; C8, 57-8.degree./10, 0.9571, 1.4349; C9, 74-6.degree./10, 0.9497, -; C10, 90-1.5.degree./10, 0.9435, 1.4422; C11, 125-6.degree./21, 0.9347, 1.4443. Alcs. were acylated with acid chlorides at 50-100.degree., HCl was removed at 100.degree. with N, the products were washed with NaOH and Na2CO3 solns., then with water, and fractionated.
The yields were 85-95% with respect to acid chloride and 70-90% with respect to neo acid. Crude ***1*** , ***3*** - ***cyclohexanediol*** esters contain monoesters and 65% diesters. Monoesters, ***freezing*** between -63 and -49.degree., have the following b.p. at 1-2 mm., n20D, and viscosity at 50.degree. in centistokes: C7, 105-68.degree., 1.4539, 8.2; C8, 120-80.degree., 1.4572, 6.4; C9, 135-92.degree., 1.4612, -; C10, 137-98.degree., 1.4608, 10.2; C11, 106-209.degree., 1.4612, 10.0. Analogously, the same values of diesters ***freezing*** between -46 and -40.degree. are as follows: C7, 168-70.degree., 1.4535, 9.5; C8, 180-1.degree., 1.4549, 11.2; C9, 192-4.degree., 1.4579, 15.9; C10, 198-200.degree., 1.4587, 21.8; C11, 209-11.degree., 1.4600, 24.4. These characteristics are further given for the esters of neo acids and polyols: C8, (CH2)6(OH)2 178-80.degree., 1.4430, 7.0; C7, (CH2)10(OH)2 192-4.degree., 1.4452, 8.6; C8, (CH2)10(OH)2 202-5.degree., 1.4481, 10.0; C7, trimethylolpropane, 213-24.degree., 1.4490-1.4509, 18.9-22.9. Diol esters ***freeze*** at the temp. between -63 and -69.degree., the triol ester at -45.degree.. The esters of 2-ethyl-1-hexanol and neo acids (***freezing*** at -67.degree. or lower) have the following characteristics (ordered in the above sequence): C7, 112-14.degree., 1.4330, 2.0; C9, 114-16.degree., 1.4365, 2.4; C13, 154-60.degree., 1.4460, 5.7; C16, 156-66.degree., 1.4510, 7.0. Mixts. of esters of C7 neo acid and 2-ethyl-1-hexanol and ***1*** , ***3*** - ***cyclohexanediol*** have improved phys. properties. Thus, the mixt. of these esters in the ratio ***1*** : ***4*** ***freezes*** at -63.degree. and has visocisity 6.06 centistokes at 50.degree..

=> d his

(FILE 'HOME' ENTERED AT 12:33:13 ON 29 AUG 2002)

FILE 'BIOSIS, EMBASE, MEDLINE, WPIDS, HCAPLUS' ENTERED AT 12:33:22 ON 29
AUG 2002
L1 0 S 13CYCLOHEXANEDIOL AND 14CYCLOHEXANEDIOL
L2 2514 S CYCLOHEXANEDIOL
L3 1847673 S "1,3"
L4 1415573 S "1,4"
L5 162390 S L3 AND L4
L6 444 S L2 AND L5
L7 846158 S FREEZ? OR PRESERV? OR CRYO?
L8 5 S L6 AND L7
L9 3 DUP REM L8 (2 DUPLICATES REMOVED)
L10 11943103 S CELL OR CELLS OR CELLULAR OR TISSUE?
L11 16 S L6 AND L10
L12 85 S L2 AND L10
L13 15 S L2 AND L7
L14 94 S L11 OR L12 OR L13
L15 74 DUP REM L14 (20 DUPLICATES REMOVED)
L16 60 S L15 AND PY<2000
L17 10 DUP REM L11 (6 DUPLICATES REMOVED)

=> s l15 not l17
L18 64 L15 NOT L17

=> dup rem l18
PROCESSING COMPLETED FOR L18
L19 64 DUP REM L18 (0 DUPLICATES REMOVED)

=> s l16 not l17
L20 54 L16 NOT L17

=> d l20 ibib abs 1-54

L20 ANSWER 1 OF 54 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2000:301644 BIOSIS
DOCUMENT NUMBER: PREV200000301644
TITLE: Process for making metabolites of lycopene.
AUTHOR(S): Pfander, Hanspeter (1); Traber, Bruno
CORPORATE SOURCE: (1) Bern Switzerland
ASSIGNEE: Roche Vitamins Inc.
PATENT INFORMATION: US 6008417 December 28, 1999
SOURCE: Official Gazette of the United States Patent and Trademark
Office Patents, (***Dec. 28, 1999***) Vol. 1229, No. 4, pp. No pagination. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
AB The invention is concerned with a multi-stage process for making an oxidative metabolite of the carotenoid lycopene, 2,6-cyclolycopene-1,5-diol having the formula ##STR1## In this process alpha-terpinyl acetate is oxidatively dihydroxylated to a ***cyclohexanediol*** (IV), the ***cyclohexanediol*** (IV) is oxidatively cleaved to a ketoaldehyde (V), the ketoaldehyde (V) is subjected to an intramolecular aldol condensation to give a cyclopentanol (VI), the cyclopentanol (VI) is silylated to its silylated derivative formylcylopentane (VII), the formylcyclopentane (VII) is subjected to a C3 -chain lengthening with acetone and simultaneously to a saponification for the cleavage of the acetyl group to give a cyclopentylbutenone (VIII), the cyclopentylbutenone (VIII) is reacted with vinyl magnesium bromide to give a pentadienol (IX), the pentadienol (IX) is converted with deprotection of the silylated hydroxy group into a phosphonium salt (X), this salt is subjected to a Wittig reaction with 2,7-dimethyl-2,4,6-octatriene-1,8-dial to give a tridecahexaenal (XII) and the tridecahexaenal (XII) is subjected to a Wittig reaction with a (3,7,11-trimethyl-dodeca-2,4,6,10-tetraenyl)triphenylphosphonium salt to give the desired 2,6-cyclolycopene-1,5-diol (II). A variant of this process, also in accordance with the invention, comprises converting the cyclopentylbutenone (VIII) into the phosphonium salt (X) via two alternative intermediates, namely a pentadienoic acid ester (XIV) and a different pentadienol (XV), into the same phosphonium salt (X). Moreover, the invention is concerned with the novel intermediates (V), (VI), (VII), (VIII), (IX), (X), (XII), (XIV) as well as (XV) and the individual process steps which lead to these novel intermediates. 2,6-cyclolycopene-1,5-diol is useful in the prevention of cancer growth in human ***cells*** .

L20 ANSWER 2 OF 54 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1994:234524 BIOSIS
DOCUMENT NUMBER: PREV199497247524
TITLE: Simple and sensitive determination of 2,3-butanediol in biological samples by gas chromatography with electron-capture detection.
AUTHOR(S): Otsuka, Masato; Ohmori, Shinjii (1)
CORPORATE SOURCE: (1) Faculty Pharmaceutical Sciences, Okayama University,
Tsushima-Naka-1-1, Okayama 700 Japan
SOURCE: Journal of Chromatography B Biomedical Applications, (1994)
Vol. 654, No. 1, pp. 1-7.
DOCUMENT TYPE: Article
LANGUAGE: English
AB 2,3-Butanediol was quantitatively oxidized into diacetyl by reaction with MnO-4- at 20 degree C for 30 min under neutral conditions. The reaction of diacetyl with 4,5-dichloro-1,2-diaminobenzene afforded 6,7-dichloro-2,3-dimethyl-quinoxaline (DCDMQ), which was extracted with n-hexane and determined by gas chromatography with electron-capture detection. As an internal standard 1,2- ***cyclohexanediol*** was used. The detection limit of DCDMQ (or 2,3-butanediol) was 10 fmol/mu-l in the extract, and the determination limit of DCDMQ (or 2,3-butanediol) was at least from 50 fmol/mu-l to 20 pmol/mu-l in the extract. Recoveries from normal rat urine and rat liver homogenate were 97.8 +- 3.4% and 98.4 +- 2.9%, respectively. The method is very simple and sensitive and is applicable to the determination of 2,3-butanediol in normal rat ***tissues*** .

L20 ANSWER 3 OF 54 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1989:243885 BIOSIS
DOCUMENT NUMBER: BA87:124950
TITLE: OXIDATION OF TRANS AND CIS-1 2 ***CYCLOHEXANEDIOL*** BY GLUCONOBACTER-OXYDANS PREPARATION OF R AND S-2 HYDROXYCYCLOHEXANONE.
AUTHOR(S): ADLERCREUTZ P
CORPORATE SOURCE: DEP. OF BIOTECHNOL., CHEM. CENT., UNIV. OF LUND, P.O. BOX
124, S-22100 LUND, SWEDEN.
SOURCE: APPL MICROBIOL BIOTECHNOL, (1989) 30 (3), 257-263.
CODEN: AMBIDG. ISSN: 0175-7598.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The enzymatic oxidation of 1,2- ***cyclohexanediol*** and related substrates by Gluconobacter oxydans (ATCC 621) was investigated. At low pH, membrane-bound enzymes were active and at high pH, NAD-dependent, soluble enzymes showed activity. Whole bacterial ***cells*** were used to catalyze some bioconversions. Racemic trans-1,2-***cyclohexanediol*** was oxidized at pH 3.5 to give (R)-2-hydroxycyclohexanone (96% e.e.) and at pH 8.0 the same substrate was oxidized to (S)-2-hydroxycyclohexanone (97% e.e.). The latter conversions was severely inhibited by the reaction product while the former was not significantly product inhibited. (S)-2-hydroxycyclohexanone (97% e.e.) was also prepared from cis-1,2-***cyclohexanediol*** by oxidation with G. oxydans ***cells*** at pH 3.5 in a reaction which continued to 100% conversion.

L20 ANSWER 4 OF 54 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1982:306077 BIOSIS
DOCUMENT NUMBER: BA74:78557

TITLE: MYO INOSITOL TRANSPORT IN SACCHAROMYCES-CEREVISIAE.
AUTHOR(S): NIKAWA J-I; NAGUMO T; YAMASHITA S
CORPORATE SOURCE: DEP. BIOCHEM., GUNMA UNIV. SCH. MED., MAEBASHI 371, JAPAN.
SOURCE: J BACTERIOL, (1982) 150 (2), 441-446.
CODEN: JOBAAY. ISSN: 0021-9193.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB myo-Inositol uptake in S. cerevisiae was dependent on temperature, time and substrate concentration. The transport obeyed saturation kinetics with an apparent Km for myo-inositol of 0.1 mM. myo-Inositol analogs, such as scyllo-inositol, 2-inosose, mannitol, and 1,2- ***cyclohexanediol*** , had no effect on myo-inositol uptake. myo-Inositol uptake required metabolic energy. Removal of D-glucose resulted in a loss of activity, and azide and cyanide ions were inhibitory. In the presence of D-glucose, myo-inositol was accumulated in the ***cells*** against a concentration gradient. A myo-inositol transport mutant was isolated against a concentration gradient. A myo-inositol transport mutant was isolated from UV-mutagenized S. cerevisiae ***cells*** using the replica-printing technique. The defect in myo-inositol uptake was due to a single nuclear gene mutation. The activities of L-serine and D-glucose transport were not affected by the mutation. Thus it was shown that S. cerevisiae grown under the present culture conditions possessed a single and specific myo-inositol transport system. myo-Inositol transport activity was reduced by the addition of myo-inositol to the culture medium. The activity was reversibly restored by the removal of myo-inositol from the medium. This restoration of activity was completely abolished by cycloheximide.

L20 ANSWER 5 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998097919 EMBASE
TITLE: Glucose transport inhibitors protect against 1,2-cyclohexanedione-produced potassium loss from human red blood ***cells*** .
AUTHOR: Baker G.F.; O'Gorman R.; Baker P.
CORPORATE SOURCE: G.F. Baker, Department of Biological Sciences, Royal Holloway, University of London, Egkam TW20 0EX, United Kingdom. g.baker@rhbnc.ac.uk
SOURCE: Experimental Physiology, (1998) 83/2 (239-242).
Refs: 5
ISSN: 0958-0670 CODEN: EXPHEZ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 002 Physiology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB It has been suggested that the glucose transport system of human erythrocytes contains an arginine shield to prevent the leak of potassium through the transporter. To investigate this suggestion we treated human erythrocytes with the specific arginine reagent 1,2-cyclohexanedione. Under conditions which produce a covalent reaction between arginine and the reagent, a steady leak of potassium occurs. If glucose, maltose or the inhibitor phloretin are present during the reaction the extent of the leak is reduced. These findings support the view that arginines have a role in preventing potassium loss through the glucose transporter.

L20 ANSWER 6 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998043017 EMBASE
TITLE: Effect of the chemical modification of the arginyl residue in Bombyx mori silk fibroin on the attachment and growth of fibroblast ***cells*** .
AUTHOR: Gotoh Y.; Tsukada M.; Minoura N.
CORPORATE SOURCE: Y. Gotoh, National Institute of Sericultural, Entomological Science, 1-2 Ohwashi, Tsukuba, Ibaraki 305, Japan
SOURCE: Journal of Biomedical Materials Research, (1998) 39/3 (351-357).
Refs: 18
ISSN: 0021-9304 CODEN: JBMRBG
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
LANGUAGE: English
SUMMARY LANGUAGE: English
AB We prepared matrices of Bombyx mori silk fibroin (SF) with different degrees of modification of arginyl residues by reaction between 1,2-cyclohexanedione (CHD) and SF. Two kinds of SF, namely native SF (NSF), obtained from the silk gland of silkworm larvae, and regenerated SF (RSF), prepared from cocoons of the same silkworm, were used in this study because their amino acid compositions were slightly different from each other. The attachment and growth of mouse fibroblast (L-929) ***cells*** on the matrices of the NSF and RSF, in which half or almost all of the arginyl residues were modified (NSF50, RSF50, NSF100, and RSF100), were studied using a ***cell*** culture method. Both NSF50 and NSF100 exhibited higher ***cell*** attachment than did the unmodified NSF. While the ***cell*** growth on NSF50 was not significantly different from that on NSF and NSF100, the growth on NSF100 was higher than that on NSF. The ***cells*** attached to NSF50 and NSF100 were extensively spread out and their filopodia were visible by SEM. The ***cell*** attachment and growth on RSF were comparable to those on NSF100. Although RSF50 exhibited almost the same ***cell*** attachment as did the unmodified RSF, RSF100 exhibited a lower ***cell*** attachment than did the unmodified RSF and RSF50. There were no significant differences in the ***cell*** growth among RSF series. The ***cells*** attached to RSF50 and RSF100 aggregated to form masses, and their filopodia could not be found. The relationship of ***cell*** attachment to the basicity of the substrate is considered because the modification of the positively charged arginyl residue changed the basicity of the substrate and the ***cell*** attachment on the substrate.

L20 ANSWER 7 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97268434 EMBASE
DOCUMENT NUMBER: 1997268434
TITLE: Modification of arginine-198 in sarcoplasmic reticulum Ca2+-ATPase by 1,2-cyclohexanedione causes inhibition of formation of the phosphoenzyme intermediate from inorganic phosphate.
AUTHOR: Saino T.; Daiho T.; Kanazawa T.
CORPORATE SOURCE: T. Kanazawa, Department of Biochemistry, Asahikawa Medical College, Nishikagura Asahikawa 078, Japan. kanazawa@asahikawa-med.ac.jp
SOURCE: Journal of Biological Chemistry, (1997) 272/34 (21142-21150).
Refs: 46
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Sarcoplasmic reticulum vesicles were modified with 1,2-cyclohexanedione (CHD), a specific arginine-modifying reagent, in sodium borate (pH 8.0 or 8.8). Phosphoenzyme formation from P(i) in the Ca2+-ATPase (reversal of hydrolysis of the phosphoenzyme intermediate) was almost completely inhibited by the modification with CHD. Tight binding of F- and Mg2+ and high affinity binding of vanadate in the presence of Mg2+, either of which produces a transition state analog for phosphoenzyme formation from the magnesium-enzyme-phosphate complex, were also markedly inhibited. In contrast, phosphoenzyme formation from acetyl phosphate in the forward reaction was unaffected. The enzyme was appreciably protected by tight binding of F- and Mg2+ or by high affinity binding of vanadate in the presence of Mg2+, but not by the presence of 20 mM MgCl2 alone or 150 mM P(i) alone, against the CHD-induced inhibition of phosphoenzyme formation from P(i). Peptide mapping of the tryptic digests, detection of peptides containing CHD-modified arginyl residues with Girard's reagent T, sequencing, and mass spectrometry showed that Arg-198 was a single

major
residue protected by tight binding of F- and Mg2+ against the modification with CHD. These results indicate that modification of Arg-198 with CHD is
responsible for at least a part (the portion reduced by the transition state analogs) of the CHD-induced inhibition of phosphoenzyme formation from P(i) and suggest that Arg-198 is located in or close to the catalytic site in the transition state for phosphoenzyme formation from the magnesium-enzyme- phosphate complex.

L20 ANSWER 8 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96348066 EMBASE
DOCUMENT NUMBER: 1996348066
TITLE: Identification of arginyl residues located at the ATP binding site of sarcoplasmic reticulum Ca2+-ATPase: Modification with 1,2-cyclohexanedione.
AUTHOR: Kimura K.; Suzuki H.; Daiho T.; Yamasaki K.; Kanazawa T.
CORPORATE SOURCE: Dept. of Biochemistry, Asahikawa Medical College,Nishikagura, Asahikawa 078, Japan
SOURCE: Journal of Biological Chemistry, (1996) 271/46 (28933-28941).
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Sarcoplasmic reticulum vesicles were treated with 1,2-cyclohexanedione (CHD) in sodium borate (pH 8.0). The Ca2+-ATPase activity was completely
inhibited. Inhibition of Mg.cntdot.ATP and Mg.cntdot.ADP binding to the high affinity ATP binding site as well as inhibition of phosphorylation with ATP occurred simultaneously with the inhibition of the Ca2+-ATPase activity. Phosphorylation with acetyl phosphate was not inhibited. The Ca2+-ATPase was strongly protected by Mg.cntdot.ATP, Mg.cntdot.ADP, and
Mg.cntdot.AMP against this inhibition. Binding of acetyl phosphate or P(i) to the enzyme gave no protection. Phosphorylation with acetyl phosphate also had no protective effect. Peptide mapping of the tryptic digests, detection of peptides containing CHD-modified arginyl residues with Girard's reagent T, and sequencing revealed that Arg-489, Arg-505, and Arg-678 were modified with CHD. Arg-489 and Arg-678 were almost completely
protected by Mg. ATP against this modification, but partially protected by prelabeling with fluorescein 5- isothiocyanate, which occupies the adenosine binding region in the ATP binding site. In contrast, Arg-505 was
slightly protected by Mg-ATP and almost completely protected by prelabeling with fluorescein 5-isothiocyanate. Taken together, these findings suggest that Arg-489 and Arg-678 are located in or near the region occupied by the triphosphate moiety of ATP, either or both of these residues being in or close to the region occupied by the .alpha.-phosphoryl group in the high affinity ATP binding site and involved in the CHD-induced inhibition of this enzyme and that Arg-505 is very close to (but slightly out of) the adenosine binding region in the ATP binding site. The acetyl phosphatase activity and phosphorylation with P(i) were also inhibited by the CHD treatment, but the inhibitions were considerably slower than those described above. This suggests that the arginyl residues involved in these inhibitions are distinct from that involved in the inhibition of the Ca2+- ATPase activity.

L20 ANSWER 9 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96263203 EMBASE
DOCUMENT NUMBER: 1996263203
TITLE: Metabolic fate of TCV-116, a new angiotensin II receptor antagonist, in rats and dogs.
AUTHOR: Kondo T.; Hagihara K.; Kato Y.; Yoshida K.; Yoshimura Y.;
Motohashi M.; Tanayama S.
SOURCE: Japanese Pharmacology and Therapeutics, (1996) 24/SUPPL. 6
(139-165).
ISSN: 0386-3603 CODEN: YACHDS
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: Japanese
SUMMARY LANGUAGE: English; Japanese
AB After oral administration of 14C labeled TCV-116 ([14C]TCV-116) to rats
and dogs, TCV-116 was absorbed from the small intestine and hydrolyzed completely to the pharmacologically active metabolite. M-I (CV-11974), during absorption process. The bioavailabilities of the drug as M-I were 19-28 and 5% in rats and dogs (both fed), respectively. In dogs, bioavailability increased to 18% by starvation. The concentration of M-I in plasma of rats attained a peak (C(max) 0.280 .mu.g/ml) 2.3 hr (T(max)) after dosing, and then declined with an apparent half life (t(1/2)) of 3.8 hr. In dogs, T(max), C(max), and t(1/2) of M-I were 1.3 hr, 0.012 .mu.g/ml, and 4.3 hr, respectively. The pharmacokinetics of M-I in rats and dogs were linear in a dose range of 1 to 100 mg/kg. In rats given [14C]TCV-116 orally, 14C was widely distributed in the bodies, with relative high concentration of plasma, gastrointestinal tract, liver, kidney, lung, and pituitary gland. The major component in rat ***tissues*** was M-I. M-I was also distributed in the blood vessels, as
target ***tissue*** . M-I and other metabolites were transferred into rat fetus and milk. M-I and its metabolites extensively bound to plasma proteins of rats and dugs, and serum proteins of humans. No protein binding interaction between TCV-116 metabolites (M-I and M-II and propranolol, nifedipine, manidipine hydrochloride, trichlormethiazide, hydrochlorothiazide, digoxin, furosemide, and mexiletine was observed in human serum albumin. M-I was partly metabolized to M-II and M-I glucuronides (M-I NG and M-I AG). After oral administration of TCV-116,
M-I and other metabolites were excreted predominantly in fetes via hepatobiliary route in rats and dogs. On repeated dosing of [14C]TCV-116,
no appreciable amount of 14C related materials was accumulated in the bodies of rats. Daily oral administration of TCV-116 to rats resulted in no effect on the drug metabolizing enzymes. The ester side chain of TCV-116 was absorbed mainly as cyclohexanol and distributed widely in ***tissues*** . Cyclohexanol was excreted largely in urine after metabolized partly to ***cyclohexanediol*** , cyclohexanetriol, and other metabolites.

L20 ANSWER 10 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 94303674 EMBASE
DOCUMENT NUMBER: 1994303674
TITLE: Purification and characterization of dimeric dihydrodiol dehydrogenase from dog liver.
AUTHOR: Sato K.; Nakanishi M.; Deyashiki Y.; Hara A.; Matsuura K.;
Ohya I.
CORPORATE SOURCE: Biochemistry Laboratory, Gifu Pharmaceutical University,Mitahora-higashi, Gifu 502, Japan
SOURCE: Journal of Biochemistry, (1994) 116/3 (711-717).
ISSN: 0021-924X CODEN: JOBIAO
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB High NADP+-linked dihydrodiol dehydrogenase activity was detected in dog
liver cytosol, from which a dimeric enzyme composed of M(r) 39,000 subunits was purified to homogeneity. The enzyme oxidized trans-***cyclohexanediol*** , and trans-dihydrodiols of benzene and naphthalene, the [1R,2R]-isomers of which were selectively oxidized. In the reverse reaction in the presence of NADPH as a coenzyme, the enzyme
reduced .alpha.-dicarbonyl compounds, such as methylglyoxal, 3-deoxyglucosone, and diacetyl, and some compounds with a carbonyl group,
such as glyceraldehyde, lactaldehyde, and acetoin. 4-Hydroxyphenylketones
and ascorbates inhibited the enzyme. The results of steady-state kinetic analyses indicated that the reaction proceeds through an ordered bi bi mechanism with the coenzyme binding to the free enzyme, and suggested that
the inhibitors bind to the enzyme-NADP+ binary complex. The dimeric enzyme

was detected in liver and kidney of dog, and was immunochemically similar
to the dimeric enzymes from monkey kidney, rabbit lens, and pig liver. The
sequences (total 127 amino acid residues) of eight peptides derived on enzymatic digestion of the dog liver enzyme did not show significant similarity with the primary structures of members of the aldo-keto reductase and short chain dehydrogenase superfamilies, which include monomeric dihydrodiol dehydrogenases and carbonyl reductase, respectively.

L20 ANSWER 11 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 93237216 EMBASE
DOCUMENT NUMBER: 1993237216
TITLE: The inhibition of glucose exits in human erythrocytes by 1,2-cyclohexanedione.
AUTHOR: Baker G.F.; Widdas W.F.
CORPORATE SOURCE: Department of Biology, Royal Holloway/Bedford New College,Egham, Surrey TW20 0EX, United Kingdom
SOURCE: Journal of Physiology, (1993) 467/- (107P).
ISSN: 0022-3751 CODEN: JPHYA7
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 002 Physiology
029 Clinical Biochemistry
LANGUAGE: English

L20 ANSWER 12 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 92253349 EMBASE
DOCUMENT NUMBER: 1992253349
TITLE: Lactoferrin uptake by the rat liver. Characterization of the recognition site and effect of selective modification of arginine residues.
AUTHOR: Ziere G.J.; Van Dijk M.C.M.; Bijsterbosch M.K.; Van Berkel T.J.C.
CORPORATE SOURCE: Division of Biopharmaceutics, Bio-Pharmaceutical Sciences Center, University of Leiden, P. O. Box 9503,2300 RA Leiden, Netherlands
SOURCE: Journal of Biological Chemistry, (1992) 267/16 (11229-11235).
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Recently it was found that lactoferrin, an iron-binding glycoprotein with a molecular weight of 76,500, inhibits the remnant receptor-mediated uptake of apolipoprotein E (apoE)-bearing lipoproteins by the liver. In the present study we characterized the hepatic recognition of lactoferrin. Intravenously injected 125I-lactoferrin was cleared rapidly from the circulation by the liver (92.8 .+-. 9.5% of the dose at 5 min after injection). Parenchymal ***cells*** contained 97.1 .+-. 1.5% of the hepatic radioactivity. Internalization, monitored by measuring the release of liver-associated radioactivity by the polysaccharide fucoidin, occurred slowly. Only about 40% of the liver- associated lactoferrin was internalized at 10 min after injection, and it took 180 min to internalize 90%. Subcellular fractionation indicated that internalized lactoferrin is transported to the lysosomes. Binding of lactoferrin to isolated parenchymal liver ***cells*** was saturable with a dissociation constant of 10 .mu.M (20 x 106 binding sites/ ***cell***). The role of arginine residues on lactoferrin was studied by modifying these residues with 1,2-cyclohexanedione. The modification resulted in a strongly reduced
liver association (15.9 .+-. 1.6% of the dose at 5 min after injection). Furthermore, unlabeled 1,2-cyclohexanedione-modified lactoferrin did not inhibit the binding of 125I-lactoferrin to isolated parenchymal ***cells*** . Arginine residues on lactoferrin thus appear to be essential for its specific recognition by parenchymal liver ***cells*** . In particular the clustered N- terminal arginine residues, which resemble the arginine-rich receptor binding sequence in apoE, may be responsible for both the interaction of lactoferrin with its recognition site and the inhibition of the hepatic uptake of apoE- bearing lipoproteins.

L20 ANSWER 13 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 90208247 EMBASE
DOCUMENT NUMBER: 1990208247
TITLE: Organic solvent in intravenous fluids.
SOURCE: Lancet, (1990) 336/8706 (44).
ISSN: 0140-6736 CODEN: LANCAO
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Note
FILE SEGMENT: 007 Pediatrics and Pediatric Surgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English

L20 ANSWER 14 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 84111485 EMBASE
DOCUMENT NUMBER: 1984111485
TITLE: Identification of in vitro rat metabolites of 1-phenylcyclohexene.
AUTHOR: Cook C.E.; Brine D.R.; Tallent C.R.
CORPORATE SOURCE: Chemistry and Life Sciences, Research Triangle Institute, Research Triangle Park, NC 27709, United States
SOURCE: Drug Metabolism and Disposition, (1984) 12/2 (186-192).
CODEN: DMDSAI
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
040 Drug Dependence, Alcohol Abuse and Alcoholism
024 Anesthesiology
LANGUAGE: English
AB In vitro metabolites of 1-phenylcyclohexene produced by the 10,000g supernatant fraction from rat liver homogenates were identified by a combination of spectrometric, chromatographic, and synthetic techniques. Initial oxidation occurred in the 3-position of 1-phenylcyclohexene to yield 1-phenyl-1-cyclohexen-3-one and 1-phenyl-1-cyclohexen-3-ol. Further
allylic oxidation at the 6-position occurred to form 1-phenyl-6-hydroxy-1-cyclohexen-3-one and 1-phenyl-1-cyclohexene-3,6-diol. Trans-1-phenyl-1-
cyclohexene-3,4-diol was also found and may have resulted from hydroxylation of 1-phenyl-1-cyclohexen-3-one .alpha. to the carbonyl to yield 4-hydroxy-1-phenyl-1-cyclohexen-3-one (not isolated) followed by carbonyl reduction. Oxidation of the double bond also occurred to give the cis and trans isomers of 1-phenylcyclohexane-1,2-diol as well as a compound postulated to be 1-phenylcyclohexane-1,2,3-triol.

L20 ANSWER 15 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 84088112 EMBASE
DOCUMENT NUMBER: 1984088112
TITLE: Binding of [3H]phencyclidine to rat and human blood constituents.
AUTHOR: Martin B.R.; Reynolds M.L.; Harris L.S.; Toro-Goyco E.
CORPORATE SOURCE: Department of Pharmacology, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA 23298, United States
SOURCE: Biochemical Pharmacology, (1984) 33/3 (429-434).
CODEN: BCPCA6
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
023 Nuclear Medicine
030 Pharmacology
LANGUAGE: English
AB The binding of [3H]phencyclidine (PCP) to rat serum and human plasma was
studied using equilibrium dialysis. [3H]PCP bound with a relatively low affinity to both rat serum [K(D) = 1.5 x 10-5 M] and human plasma [K(D) =
6.2 x 10-6 M]. However, the binding capacity was quite large for rat serum

(5.7 nmoles/ml) and human plasma (5.6 nmoles/ml). Binding was readily reversible as shown by the efflux of [3H]PCP from a dialysis bag containing the rat serum-drug complex. In addition, the [3H]PCP-human serum complex appeared to dissociate completely when analyzed by Sephadex
gel filtration chromatography. The low affinity of PCP for serum appeared to account in large part for the high ***tissue*** -to-plasma ratios that are observed in animals and humans injected with this drug. In vitro equilibrium of [3H]PCP between rat serum and ***tissue*** homogenates
resulted in at least a 10-fold accumulation of [3H]PCP in the homogenates.
[3H]PCP was found to bind weakly to the major protein components of human
serum (macroglobulins, immunoglobulins and albumins). The weak nature of
the binding to serum proteins coupled with the relatively high capacity of binding probably account for the failure of other drugs to compete for PCP binding.

L20 ANSWER 16 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 84044355 EMBASE
DOCUMENT NUMBER: 1984044355
TITLE: Mutagenicity of 3 structurally related epoxides, with defined stereochemical configuration, in Saccharomyces cerevisiae and in V79 Chinese hamster ***cells*** .
AUTHOR: Turchi G.; Bauer C.; Bronzetti G.; et al.
CORPORATE SOURCE: Istituto di Mutagenesi e Differenziamento, CNR, Pisa, Italy
SOURCE: Mutation Research, (1983) 117/1-2 (213-224).
CODEN: MUREAV
COUNTRY: Netherlands
DOCUMENT TYPE: Journal
FILE SEGMENT: 022 Human Genetics
052 Toxicology
004 Microbiology
LANGUAGE: English
AB 3 Structurally related epoxides, 3,4-epoxycyclohexane, trans-1,2,3,4-diepoxycyclohexane and trans-3,4-epoxycyclohexane-r-1,trans-
2-diol (anti isomer) were tested for their ability to induce both point mutation, mitotic gene conversion and recombination in a diploid strain (D7) of the yeast Saccharomyces cerevisiae, with and without a mammalian
microsomal activation system, and the formation of 6-thioguanine-resistant mutants in V79 hamster ***cells*** . Genetic effects were related to the alkylating properties of the epoxides, as measured by alkylation of 4-(p-nitrobenzyl)pyridine (NBP). Of the 3 epoxides, only 3,4-epoxycyclohexane, characterized by the highest reactivity towards NBP,
induced all genetic effects in both test systems. A marginal activity was shown by trans-1,2,3,4-diepoxycyclohexane only in the yeast. The lack of genetic activity of the anti isomer of 3,4-epoxycyclohexane-1,2-diol, in spite of the formal similarity of its functional groups with those present in mutagenic polycyclic arene epoxydiols, was attributed to the dramatic reduction of lipophilicity of the molecule.

L20 ANSWER 17 OF 54 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 81221142 EMBASE
DOCUMENT NUMBER: 1981221142
TITLE: Alkylating properties and genetic activity of 4-vinylcyclohexene metabolites and structurally related epoxides.
AUTHOR: Turchi G.; Bonatti S.; Citti L.; et al.
CORPORATE SOURCE: Ist. Mutagenesi Differenziam., CNR, Pisa, Italy
SOURCE: Mutation Research, (1981) 83/3 (419-430).
CODEN: MUREAV
COUNTRY: Netherlands
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
022 Human Genetics
035 Occupational Health and Industrial Medicine
LANGUAGE: English
AB The mutagenicity of the epoxides 4-vinyl-1,2-epoxycyclohexane, 4-epoxyethyl-1,2-epoxycyclohexane, 4-epoxyethyl-1,2-dihydroxycyclohexane,
1,2-epoxycyclohexane and styrene oxide was assayed on the TA100 strain of
S. typhimurium and V79 Chinese hamster ***cells*** . In the latter ***cell*** system, both point mutation (6-thioguanine resistance) and chromosomal damage (anaphase bridges and micronuclei) were scored. Genetic
effects were related to the alkylating properties of the epoxides. For this purpose, alkylation of 4-(p-nitrobenzyl)pyridine (NPB) and sodium-p-nitrothiophenolate (NTP) was measured and values for the substrate constant (s) were calculated.
4-Epoxyethyl-1,2-epoxycyclohexane,
1,2-epoxycyclohexane and styrene oxide, characterized by the highest activity toward NBP and by an s value in the vicinity of 1, were mutagenic in all test systems. 4-Vinyl-1,2-epoxycyclohexane and 4-epoxyethyl-1,2-dihydroxycyclohexane, characterized by lower NBP reactivity and higher s
value (1.30-1.38), did not induce reversion in S. typhimurium or 6-thioguanine-resistant mutants in V79 ***cells*** , but were as effective as the 3 other compounds in the induction of chromosomal damage.

L20 ANSWER 18 OF 54 MEDLINE
ACCESSION NUMBER: 90335219 MEDLINE
DOCUMENT NUMBER: 90335219 PubMed ID: 2165805
TITLE: Synthesis of affinity ligands and radioactive probes for isolation and study of myo-inositol 1,4,5-trisphosphate binding proteins.
AUTHOR: Jina A N; Ralph J; Ballou C E
CORPORATE SOURCE: Department of Biochemistry, University of California,
Berkeley 94720.
CONTRACT NUMBER: GM 35824 (NIGMS)
SOURCE: BIOCHEMISTRY, ***(1990 May 29)*** 29 (21) 5203-9.
Journal code: 0370623. ISSN: 0006-2960.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199009
ENTRY DATE: Entered STN: 19901012
Last Updated on STN: 19901012
Entered Medline: 19900911
AB To synthesize an affinity matrix for isolation of D-myo-inositol 1,4,5-trisphosphate binding proteins, racemic 3-cyclohexene-1-carboxaldehyde was oxidized and converted to a mixture of trans-3,4-di-hydroxycyclohexane-1-carboxylic acid methyl ester isomers, which was phosphorylated and separated into (+-)-(1R,3R,4R)- and (+-)-(1R,3S,4S)-trans-3,4-bis[(diphenoxyphosphoryl)oxy]cyclohex an e-1-carboxylic acid methyl esters. Each of these racemic compounds was hydrogenolyzed and reacted with ethylenediamine to give a monoamide, N-(2-aminoethyl)-bis(phosphonyloxy)cyclohexane-1-carboxamide, that was
coupled to cyanogen bromide activated Sepharose 4B to provide the desired
affinity matrices. The intermediate trans-3,4-bis[(diphenoxyphosphoryl)oxy]cyclohexane-1-carboxylic acid methyl ester
was also reduced with lithium borotritide to give the (hydroxy[3H]methyl)cyclohexane derivative, which was phosphorylated and
hydrogenolyzed to yield trans-3,4-bis(phosphonyloxy)-1-[(phosphonyloxy)[3H]methyl]cy clohexane, a radiolabeled analogue of inositol 1,4,5-trisphosphate. The carboxamide was also coupled to 4-azidosalicylic acid, and the product was iodinated to provide a 125I-radiolabeled photoactivatable cross-linking derivative of ***cyclohexanediol*** bisphosphate.

L20 ANSWER 19 OF 54 MEDLINE
ACCESSION NUMBER: 84008154 MEDLINE
DOCUMENT NUMBER: 84008154 PubMed ID: 6619130
TITLE: The role of arginyl residues in estrogen receptor activation and transformation.
AUTHOR: Muller R E; Mrabet N T; Traish A M; Wotiz H H
CONTRACT NUMBER: CA 28856 (NCI)
HD 15213 (NICHD)
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, ***(1983 Oct 10)***

258 (19) 11582-9.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198311
ENTRY DATE: Entered STN: 19900319
Last Updated on STN: 19970203
Entered Medline: 19831123

AB Receptor-estradiol complexes (RE2) formed at 0 degree C in hypotonic buffers bind poorly to nuclei (nonactivated state); their sedimentation coefficient in low or high salt sucrose density gradients (SDG) is 8 S or 4 S, respectively (untransformed state); estradiol dissociates from untransformed RE2 at a high rate (k-1 = 0.44 min-1). Brief heating (28 degrees C, 30 min) induces activation (increased binding of RE2 to nuclei and polyanions), transformation (formation of receptor dimers which sediment at 6 S in 0.4 M KCl/borate SDG) and RE2 transition into a state from which E2 dissociates at a lower rate (k-2 = 8 X 10(-3) min-1). We have examined the role of arginyl residues in the above changes in receptor properties. It is well established (Patthy, L., and Smith, E. L. (1975) J. Biol. Chem. 250, 557-564; 565-569) that 1,2-cyclohexanedione (1,2-CHD) is a highly specific arginine-modifying agent; in borate buffer at 28 degrees C, but not at 0 degrees C, peptide arginyls are covalently modified. RE2 complexes heated in the presence of 1,2-CHD (50 mM) bind poorly to nuclei; 1,4-cyclohexamedione and 1,2- ***cyclohexanediol*** had no effect. This reagent also prevents the temperature-induced transition of RE2 into a state with slow E2 dissociation rates although it does not interfere with heat transformation (formation of 6 S dimer). Modification of heat-activated and transformed RE2 by 1,2-CHD causes a loss in receptor binding to nuclei and alters RE2 from a state with slow into a state with fast E2 dissociation rates, although the receptor remains unaltered in the transformed 6 S state. At 0 degree C, i.e. in the absence of covalent arginyl modification, 1,2-CHD promotes dissociation of the 8 S aggregate into 4.6 S subunits which bind to nuclei to the same extent as heat-transformed control RE2. Heating of the molybdate-stabilized 8 S receptor in the presence of 1,2-CHD yields a nonactivated 8 S receptor (4.6 S on high salt SDG); removal of molybdate and unreacted 1,2-CHD by gel filtration at 0 degree C followed by exposure to high ionic strength causes 8 S to 4 S dissociation; these 4 S subunits, however, do not bind to nuclei, suggesting that their nucleotropic domain was accessible to 1,2-CHD modification while the receptor was in the aggregated 8 S state. It is proposed that the nuclear binding site of the estrogen receptor contains arginyl residues. Furthermore, a distinct set of arginyl residues appears to be related to the estrogen-binding domain; its integrity is required for the heat-induced formation and maintenance of the RE2 state with slow E2 dissociation.(ABSTRACT TRUNCATED AT 400 WORDS)

L20 ANSWER 20 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-571686 [48] WPIDS
DOC. NO. CPI: C1999-166775
TITLE: Formation of amyloid plaques using amyloid protein and sulfated macromolecules, for, e.g. identification of agents for treating Alzheimer's disease.
DERWENT CLASS: A14 A96 B04 C07 D16
INVENTOR(S): CASTILLO, G; SNOW, A D
PATENT ASSIGNEE(S): (UNIW) UNIV WASHINGTON
COUNTRY COUNT: 84
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9945947	A1	19990916 (199948)*	EN	89	<--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
UA UG UZ VN YU ZW

AU 9930838	A	19990927 (200006)			<--
EP 1064013	A1	20010103 (200102)	EN		

R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT RO SE
JP 2002506043 W 20020226 (200219) 123

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9945947	A1	WO 1999-US5438	19990312
AU 9930838	A	AU 1999-30838	19990312
EP 1064013	A1	EP 1999-912468	19990312
		WO 1999-US5438	19990312
JP 2002506043 W		WO 1999-US5438	19990312
		JP 2000-535360	19990312

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9930838	A Based on	WO 9945947
EP 1064013	A1 Based on	WO 9945947
JP 2002506043 W	Based on	WO 9945947

PRIORITY APPLN. INFO: US 1998-77924P 19980313
AN 1999-571686 [48] WPIDS
AB WO 9945947 A UPAB: 19991122
NOVELTY - Formation of amyloid plaques by co-incubation of an amyloid protein (AP) with sulfated macromolecules is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) identification of anti-amyloid plaque therapeutics comprising:
(a) labeling AP or sulfated macromolecules;
(b) forming amyloid plaques in vitro from the labeled AP following incubation in distilled water or Tris-buffered saline (pH 7.0-7.4) at 37 deg. C for 7 days;
(c) adding a known amount of potential plaque therapeutic for a given time, and
(d) detecting breakdown or disruption of the amyloid plaques;
(2) an in vivo assay for selecting a candidate therapeutic for inhibiting or disrupting amyloid plaque deposition or persistence comprising:
(a) pre-forming congophilic maltese-cross amyloid plauqes in vitro following incubation of an AP and a selected sulfated macromolecule;
(b) using a first cannula and osmotic pump to continuously infuse, for a selected duration, the pre-formed congophilic maltese-cross amyloid plaques into a ***tissue*** or organ;
(c) changing the first cannulae and osmotic pump with a second cannulae and osmotic pump to administer the candidate therapeutic; and
(d) detecting the candidate therapeutic's ability to disrupt, reduce, or eliminate congophilic maltese-cross amyloid plaque deposition/persistence in the ***tissue*** or organ.
USE - The methods can be used to study the formation of amyloid plaques and to identify anti-plaque therapeutics. They can be used for diseases such as Alzheimer's disease, Cretzfeldt-Jakob disease, Gerstmann-Straussler syndrome and kuru.
Dwg.0/7

L20 ANSWER 21 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-540548 [45] WPIDS
DOC. NO. CPI: C1999-157843
TITLE: New ***cyclohexanediol*** derivatives for treatment of hyperproliferative skin diseases - such as psoriasis, basal ***cell*** carcinoma, keratosis and keratinization.
DERWENT CLASS: B05
INVENTOR(S): BARBIER, P; BAUER, F; MOHR, P; MUELLER, M; PIRSON, W; MULLER, M
PATENT ASSIGNEE(S): (HOFF) HOFFMANN LA ROCHE & CO AG F; (HOFF) HOFFMANN LA ROCHE INC
COUNTRY COUNT: 86
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 9943646 A1 19990902 (199945)* EN 40 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
UA UG UZ VN YU ZW
ZA 9901550 A 19991124 (200001) 39 <--
AU 9926246 A 19990915 (200004) <--
BR 9908315 A 20001107 (200063)
EP 1056716 A1 20001206 (200064) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU NL PT SE
US 6184422 B1 20010206 (200109)
CN 1291974 A 20010418 (200141)
KR 2001041313 A 20010515 (200167)
MX 2000008236 A1 20010301 (200170)
JP 2002504537 W 20020212 (200215) 66

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9943646	A1	WO 1999-EP1118	19990220
ZA 9901550	A	ZA 1999-1550	19990225
AU 9926246	A	AU 1999-26246	19990220
BR 9908315	A	BR 1999-8315	19990220
		WO 1999-EP1118	19990220
EP 1056716	A1	EP 1999-906250	19990220
		WO 1999-EP1118	19990220
US 6184422	B1	US 1999-252508	19990218
CN 1291974	A	CN 1999-803314	19990220
KR 2001041313	A	KR 2000-709419	20000825
MX 2000008236	A1	MX 2000-8236	20000823
JP 2002504537	W	WO 1999-EP1118	19990220
		JP 2000-533405	19990220

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9926246	A Based on	WO 9943646
BR 9908315	A Based on	WO 9943646
EP 1056716	A1 Based on	WO 9943646
JP 2002504537	W Based on	WO 9943646

PRIORITY APPLN. INFO: EP 1998-103346 19980226
AN 1999-540548 [45] WPIDS
AB WO 9943646 A UPAB: 19991103
NOVELTY - New ***cyclohexanediol*** derivatives are prepared by cleaving the protecting groups Y', Z' and R4 from (II) in the presence of tetrabutylammonium fluoride in an inert solvent.
DETAILED DESCRIPTION - ***Cyclohexanediol*** derivatives of
formula (I) are new:
X = C=CH2 or CH2;
Y, Z = H, F or OH;
A = C triple bond C, CH=CH or CH2CH2;
R1, R2 = alkyl or perfluoroalkyl;
R3 = lower alkyl
An INDEPENDENT CLAIM is included for intermediate protected compounds
of formula (II):
Y', Z' = protected OH;
R4 = OH protecting group
ACTIVITY - Antiproliferative agent;
MECHANISM OF ACTION - Vitamin-D receptor agonist. Application of (I)
resulted in upto a 10-fold increase in vitamin-D receptor activation (ED50 4-280 nM; calcitriol ED50 2.8 nM)
USE - (I) are antiproliferative agents useful for treatment or prevention of hyperproliferative skin diseases particularly psoriasis, basal ***cell*** carcinomas, keratinization disorders and keratosis, neoplastic diseases, disorders of the sebaceous glands such as acne and seborrheic dermatitis or for reversing conditions associated with photodamage, particularly treatment of skin damaged through sun exposure,
the effects of wrinkling, elastosis and premature aging.
Dwg.0/0

L20 ANSWER 22 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-277604 [23] WPIDS
CROSS REFERENCE: 2001-015701 [63]
DOC. NO. CPI: C1999-081639
TITLE: Preparing a polyester polyol based resin blend for rigid closed ***cell*** foam.
DERWENT CLASS: A25 A26 A32 A60 A94
INVENTOR(S): HICKEY, F L
PATENT ASSIGNEE(S): (STEP) STEPAN CO
COUNTRY COUNT: 83
PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG
WO 9919377 A1 19990422 (199923)* EN 41 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE
GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG
MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
US UZ VN YU ZW
US 5922779 A 19990713 (199934) <--
AU 9896877 A 19990503 (199937) <--
EP 1023351 A1 20000802 (200038) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI
EP 1023351 B1 20020327 (200222) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI
MX 2000003503 A1 20010601 (200235)
DE 69804483 E 20020502 (200237)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9919377	A1	WO 1998-US21077	19981007
US 5922779	A	US 1997-949239	19971010
AU 9896877	A	AU 1998-96877	19981007
EP 1023351	A1	EP 1998-950968	19981007
		WO 1998-US21077	19981007
EP 1023351	B1	EP 1998-950968	19981007
		WO 1998-US21077	19981007
MX 2000003503	A1	MX 2000-3503	20000410
DE 69804483	E	DE 1998-604483	19981007
		EP 1998-950968	19981007
		WO 1998-US21077	19981007

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9896877	A Based on	WO 9919377
EP 1023351	A1 Based on	WO 9919377
EP 1023351	B1 Based on	WO 9919377
DE 69804483	E Based on	EP 1023351
	Based on	WO 9919377

PRIORITY APPLN. INFO: US 1997-949239 19971010
AN 1999-277604 [23] WPIDS
CR 2001-015701 [63]
AB WO 9919377 A UPAB: 20020613
NOVELTY - Preparing rigid closed ***cell*** polyisocyanate-based foam
comprising polyol resin blends having increased phase stability and lower viscosity.

DETAILED DESCRIPTION - A method for preparing a rigid closed ***cell*** polyisocyanate-based foam comprises reacting an organic aromatic polyisocyanate and a polyol in the presence of a nonionic surfactant and a 4-7C aliphatic or cycloaliphatic hydrocarbon blowing agent. The polyol resin blend comprising an aromatic polyester polyol formed by inter-esterification reaction between: (i) a phthalic acid based material; (ii) a hydroxylated material having a functionality of at least 2; and (iii) a hydrophobic material having: (I) from 1-6 radicals selected from carboxylic acid (ester) groups, hydroxyl groups and their mixtures; and (II) hydrocarbon groups comprising a total of at least 4C atoms for each radical present in the hydrophobic material; and (III) an average molecular weight from 100-1000.

An INDEPENDENT CLAIM is also included for a polyester polyol based resin blend.

USE - Used to make rigid closed ***cell*** polyisocyanate-based foams which are dimensionally stable, have good insulation values and excellent flame retardance.

ADVANTAGE - Have increased phase stability and lower viscosity.

Dwg.0/0

L20 ANSWER 23 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-277259 [23] WPIDS
DOC. NO. NON-CPI: N1999-207828
DOC. NO. CPI: C1999-081438
TITLE: Use of ice-controlling molecules comprising an aliphatic moiety bearing 2 or more substituents that simultaneously form hydrogen bonds with ice.
DERWENT CLASS: A60 A83 A95 B04 C03 D13 D15 D22 E15 E17 P13
INVENTOR(S): FAHY, G M
PATENT ASSIGNEE(S): (LIFE-N) LIFE SCI HOLDINGS INC; (ORGA-N) ORGAN INC
COUNTRY COUNT: 82
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9918169	A1	19990415 (199923)*		EN	63 <--

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE
GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG
MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
UZ VN YU ZW

AU 9897842	A	19990427 (199936)	<--
EP 1019458	A1	20000719 (200036)	EN

R: CH DE FR GB LI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9918169	A1	WO 1998-US20834	19981002
AU 9897842	A	AU 1998-97842	19981002
EP 1019458	A1	EP 1998-952047	19981002
		WO 1998-US20834	19981002

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9897842	A Based on	WO 9918169
EP 1019458	A1 Based on	WO 9918169

PRIORITY APPLN. INFO: US 1997-943147 19971003
AN 1999-277259 [23] WPIDS
AB WO 9918169 A UPAB: 20011203
NOVELTY - Molecules comprising an aliphatic moiety bearing 2 or more substituents that simultaneously form hydrogen bonds with ice are used for promoting nucleation of ice crystals, inhibiting growth of ice crystals, or bonding a material to ice

USE - Ice crystal growth can be inhibited in an ice crystal, a ***cryoprotective*** solution, a food product, a living plant, a vehicle surface, a road surface, a walkway, a light transmitter or a utility line; in an organ, body fluid or other body ***tissue*** or ***cell*** that is to be cooled for ***cryopreservation*** ; or a solid coated with a thin layer of ice.

The compounds are useful in bonding a material such as tire treads and shoes to ice, to reduce accidents; and for promoting nucleation of ice crystals in clouds.

Dwg.0/19

L20 ANSWER 24 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1991-339538 [46] WPIDS
CROSS REFERENCE: 1990-099248 [13]
DOC. NO. CPI: C1991-146537
TITLE: New mitomycin derivs. having reduced bone marrow toxicity
- used for treating bacterial infection caused by e.g. Escherichia, and cancer, e.g. leukaemia and melanoma.
DERWENT CLASS: B02 C01 C02 D22 E19
INVENTOR(S): CLARKE, R R; GHIORGHIS, A; TALEBIAN, A
PATENT ASSIGNEE(S): (GEOU) UNIV GEORGETOWN
COUNTRY COUNT: 19
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9116049	A	19911031 (199146)*			<--

RW: AT BE CH DE DK ES FR GB GR IT LU NL SE
W: AU CA JP

AU 9177923	A	19911111 (199207)			<--
US 5091523	A	19920225 (199211)		32	<--
EP 533692	A1	19930331 (199313)	EN	85	<--

R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE

JP 06500532	W	19940120 (199408)		22	<--
NZ 237941	A	19940225 (199411)			<--
AU 656137	B	19950127 (199512)			<--
EP 533692	A4	19950322 (199612)			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5091523	A	US 1990-620853	19901203
EP 533692	A1	EP 1991-909073	19910425
		WO 1991-US2850	19910425
JP 06500532	W	JP 1991-508867	19910425
		WO 1991-US2850	19910425
NZ 237941	A	NZ 1991-237941	19910424
AU 656137	B	AU 1991-77923	19910425
EP 533692	A4	EP 1991-909073	

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 533692	A1 Based on	WO 9116049
JP 06500532	W Based on	WO 9116049
AU 656137	B Previous Publ.	AU 9177923
	Based on	WO 9116049

PRIORITY APPLN. INFO: US 1990-513266 19900425; US 1990-620853 19901203
AN 1991-339538 [46] WPIDS
CR 1990-099248 [13]
AB WO 9116049 A UPAB: 19940928
Mitomycin derivatives of formula (I) are new. R = H or 1-4C alkyl. A = 1-4C alkylene or unsaturated alkylene, phenylene (opt. substd.), benzylene (opt. substd.), heteroaryl (opt. substd.) or 3-6C heterocycloalkyl. n,n1 = 0 or 1. A1 = O, 1-4C opt. saturated alkylene, -CO-NH- or -NH-CO-, A2 = O, 1-4C opt. saturated alkylene, NH, NR or -NH-CO-. n2 = 0 or 1. Y = glucopyranosyl, galactopyranosyl, mannopyranosyl, xylopyranosyl, cellobiosyl, lactosyl, glucosuranosyl, maltosyl or 1,3-***cyclohexanediol*** -2-yl, their hydroxyl protected derivs. or the corresponding amino-, diamino- or triaminosaccharides. Provided that when n is 1, then A1 is 1-4C opt. saturated alkylene, and when n is 0, then 1 or n1 and n2 is O. 6 compounds are specifically claimed including 7-(3-(2-acetamido-3,4,6-tri-O-acetyl -beta-D-glucopyranosyl)-amino)

carbonylpropylamino)-9-methoxymitosane.

Also claimed are mitomycin derivatives of formulae (II) and (III). A1 = A. Q1, Q2, Qa, Qb = independently Y or a group of formula H-(NH-CH(R1)-CO)-q. R1 = H or 1-4C alkyl (opt. susbtd.). q = 0-4.

USE/ADVANTAGE - For treating bacterial infection (claimed), preferably caused by Escherichia, Pseudomonas, Salmonella, Staphylococcus,

Klebsiella and Listeria, and for treating cancer (claimed) by suppressing growth of cancer ***cells*** . The cancer is preferably leukaemia, melanoma, sar

ABEQ US 5091523 A UPAB: 19930928

Mitomycin derivs. of formulae (I)-(VI) are new. In these, n, n1, n2 and 0 or 1; q is 0-4; Y is gluco- galacto-, manno- or xylo-pyranosyl, cellobiosyl, lactosyl, glucofuranosyl maltosyl, or 2-amino-1,3- ***cyclohexanediol*** , or their OH-protected acetate derivs.; R is H; R1

is H, 1-4C alkyl opt. substd., 1-4C alkylthio, OH, COO, NH2, guanidino, imidazole, or carbamoyl; or R1 and R2 form 5- or 6-membered N-contg. ring;

R2 is NH2 or MeO; R3 is 3-cyano-4-morpholinyl-2-deoxypyranosyl saccharide

opt. without the 3-CN gp.; A is 1-4C alkylene or unsatd. alkylene, phenylene, benzylene, heteroaryl, all opt. substd. or 3-6C heteroaryl-alkyl; A1 is O, 1-4C alkylene, NH, NR or NHCO; Qa and Qb are

alkali metal or as Y or corresp. mono-, di- and tri-aminosaccharides or (a).

A typical cpd. is N7-(2-deoxyglucopyranosyl)mitomycin C. A typical prepn. is by dehydration-condensing an N-protected amino acid with an alcohol to activated ester and condensing this with an amino cpd., deprotecting the conjugate and condensing with mitomycin A or C.

USE - The treatment of bacterial infections and to suppress growth of cancer ***cells*** . Topical dose is 0.01-1000 mcg/ml.

L20 ANSWER 25 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1988-362747 [51] WPIDS
DOC. NO. CPI: C1988-160440
TITLE: Compsns. for treating chronic viral infections - contg. sterile aq. beta-glucuronidase soln. 1,3-cyclohexan di ol and protamine.
DERWENT CLASS: B04 D16
PATENT ASSIGNEE(S): (MCEW-I) MCEWAN L M
COUNTRY COUNT: 2
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2205746	A	19881221 (198851)*		11	<--
GB 2205746	B	19910327 (199113)			<--
IT 1218080	B	19900412 (199210)			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2205746	A	GB 1988-14195	19880615

PRIORITY APPLN. INFO: GB 1987-13906 19870615
AN 1988-362747 [51] WPIDS
AB GB 2205746 A UPAB: 19930923

Compsns. for treating post viral syndrome or AIDS comprise a sterile aq. soln. of highly purified beta-glucuronidase (I).

The soln. pref. contains 50-1000 FU of (I) per dose, esp. together with 10 power -11 - 10 power -7 g of 1,3- ***cyclohexanediol*** (II) and 10 power -8 - 10 power -5 g of protamine (III), in a sterile phosphate-free buffer soln. The soln. may be administered together with an

antigen, e.g. food allergen.

ADVANTAGE - (I) stimulates immune response to chronic viral infections, e.g. by increasing T4 helper ***cell*** counts in HIV infections.

0/0

ABEQ GB 2205746 B UPAB: 19930923

The use of beta-glucuronidase for the manufacture of a composition for use

in the treatment of post viral syndrome which composition comprises a sterile aqueous solution of beta-glucuronidase.

L20 ANSWER 26 OF 54 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1978-50045A [28] WPIDS
TITLE: Sublimable compsns. contg. hydrocarbon and polar cpd. - are used to release e.g. perfumes, insecticides, deodorants, rust and mould inhibitors and ***preservatives*** into atmos..
DERWENT CLASS: C03 G04 P24 P34
INVENTOR(S): HAYASHI, H; ICHIKAWA, H; SATO, H
PATENT ASSIGNEE(S): (IDEK) IDEMITSU IND CO LTD
COUNTRY COUNT: 5
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 2756953	A	19780706 (197828)*			<--
JP 53081630	A	19780719 (197834)			<--
JP 53081632	A	19780719 (197834)			<--
FR 2375310	A	19780825 (197839)			<--
JP 53121936	A	19781024 (197848)			<--
JP 53144476	A	19781215 (197905)			<--
JP 53145920	A	19781219 (197905)			<--
JP 53146975	A	19781221 (197906)			<--
JP 54002349	A	19790109 (197907)			<--
JP 54036211	B	19791108 (197949)			<--
JP 55030989	B	19800814 (198037)			<--
JP 55035175	B	19800911 (198041)			<--
US 4233161	A	19801111 (198048)			<--
JP 55049097	B	19801209 (198102)			<--
JP 56008801	B	19810225 (198112)			<--
JP 56014704	B	19810406 (198118)			<--
GB 1594248	A	19810730 (198131)			<--
JP 57048047	B	19821014 (198245)			<--
DE 2756953	C	19830421 (198317)			<--

PRIORITY APPLN. INFO: JP 1976-155650 19761225; JP 1976-155652 19761225; JP 1977-34674 19770330; JP 1977-58220 19770521; JP 1977-59360 19770524; JP 1977-61255 19770527; JP 1977-66298 19770607; JP 1977-123460 19771017
AN 1978-50045A [28] WPIDS
AB DE 2756953 A UPAB: 19930901

Sublimable compsns. contain >=1 sublimable hydrocarbon and >=1 sublimable

polar cpd. The hydrocarbon is pref. adamantane (I) endo-trimethylene-norbornane (II), cyclododecane, norbornane, trimethylbornane and/or naphthalene. The polar cpd. is pref. dimethyl fumarate (III) benzoic acid, trioxymethylene, coumarin, p-dichlorobenzene, caprolactam, 1,4- ***cyclohexanediol*** phthalide, lactide acid and/or triisopropyltrioxane.

The compsns. can be used to release active substances (perfumes, moth-proofing agents, insecticides, insect repellants or attractants, deodorants, rust inhibitors mould inhibitors, ***preservatives*** etc.) into the atmos. The polar cpds. retards the release of the active substance.

L20 ANSWER 27 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:671048 HCAPLUS
DOCUMENT NUMBER: 131:286669
TITLE: preparation of a dodecenylidenecyclohexanediol derivative to treat or prevent hyperproliferative skin diseases
INVENTOR(S): Bauer, Franz; Courtney, Lawrence F.
PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5969190	A	19991019	US 1998-79656	19980515 <--
ZA 9804176	A	19990108	ZA 1998-4176	19980518 <--
PRIORITY APPLN. INFO.:			EP 1997-108355 A	19970523

OTHER SOURCE(S): MARPAT 131:286669
GI

/ Structure 1 in file .gra /

AB The compd., (E)-(1R,3R)-5-[(R)-11-hydroxy-7,11-dimethyldodec-2-enylidene]cyclohexane-1,3-diol (I) was prepd. Thus I was prepd. via the reaction of II prepd. from (-)-citronellal and III followed by the deprotection of silyl groups. I was formulated into soft gel capsules for oral administration or topical cream. I is useful in the treatment or prevention of hyperproliferative skin diseases, particularly psoriasis, basal ***cell*** carcinomas, disorders of keratinization and keratosis; or for reversing the conditions assocd. with photodamage.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 28 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:222724 HCAPLUS
DOCUMENT NUMBER: 131:39206
TITLE: Chicoric Acid Analogs as HIV-1 Integrase Inhibitors
AUTHOR(S): Lin, Zhaiwei; Neamati, Nouri; Zhao, He; Kiryu, Yoshimitsu; Turpin, Jim A.; Aberham, Claudia; Strebel, Klaus; Kohn, Kurt; Witvrouw, Myriam; Pannecouque, Christophe; Debyser, Zeger; De Clercq, Erik; Rice, William G.; Pommier, Yves; Burke, Terrence R., Jr.
CORPORATE SOURCE: Laboratory of Medicinal Chemistry Division of Basic Sciences, National Cancer Institute, Bethesda, MD, 20892, USA
SOURCE: Journal of Medicinal Chemistry (***1999***), 42(8), 1401-1414
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The present study was undertaken to examine structural features of L-chicoric acid which are important for potency against purified HIV-1 integrase and for reported cytoprotective effects in ***cell*** -based systems. Through a progressive series of analogs, it was shown that enantiomeric D-chicoric acid retains inhibitory potency against purified integrase equal to its L-counterpart and further that removal of either one or both carboxylic functionalities results in essentially no loss of inhibitory potency. Addnl., while two caffeoyl moieties are required, attachment of caffeoyl groups to the central linking structure can be achieved via amide or mixed amide/ester linkages. More remarkable is the finding that blockage of the catechol functionality through conversion to tetraacetate esters results in almost no loss of potency, contingent on the presence of at least one carboxyl group on the central linker. Taken as a whole, the work has resulted in the identification of new integrase inhibitors which may be regarded as bis-caffeoyl derivs. of glycidic acid and amino acids such as serine and .beta.-aminoalanine. The present study also examd. the reported ability of chicoric acid to exert cytoprotective effects in HIV-infected ***cells*** . It was demonstrated in target and ***cell*** -based assays that the chicoric acids do not significantly inhibit other targets assocd. with HIV-1 replication, including reverse transcription, protease function, NCp7 zinc finger function, or replication of virus from latently infected ***cells*** . In CEM ***cells*** , for both the parent chicoric acid and selected analogs, antiviral activity was observable under specific assay conditions and with high dependence on the multiplicity of viral infection. However, against HIV-1- and HIV-2-infected MT-4 ***cells*** , the chicoric acids and their tetraacetylated esters exhibited antiviral activity (50% effective concn. (EC50) ranging from 1.7 to 20 .mu.M and 50% inhibitory concn. (IC50) ranging from 40 to 60 .mu.M).
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 29 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:161265 HCAPLUS
DOCUMENT NUMBER: 130:201358
TITLE: Immobilized cobalt-salen complexes in zeolites as catalysts for cyclohexene oxidation
AUTHOR(S): Ernst, Stefan; Weber, Astrid; Weichert, Joerg
CORPORATE SOURCE: Fachbereich Chemie-Technische Chemie, Universitaet Kaiserslautern, Kaiserslautern, D-67653, Germany
SOURCE: Chemie-Ingenieur-Technik (***1999***), 71(1/2), 147-149
CODEN: CITEAH; ISSN: 0009-286X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Co-salen complexes [salen: N,N'-bis(salicyliden)ethylendiamin] were incorporated into the intercryst. cavities of zeolite NaY using the flexible ligand method. The complex content was adjusted to one complex in every 2nd, 10th, and 20th unit ***cell*** of zeolite Y. The obtained host/guest compds. showed catalytic activity in the liq.-phase oxidn. of cyclohexene with aq. H2O2 (reaction products: 1,2-***cyclohexanediol*** , 2-cyclohexenol, 2-cyclohexenone). For the 3 investigated complex concns., the catalytic activity per active center was independent from the complex content of the zeolite. The catalytic activity decreased only if the complex content was increased to 1 complex and 2 complexes per unit ***cell*** , resp. (no data).
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 30 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:809975 HCAPLUS
DOCUMENT NUMBER: 130:217714
TITLE: Antisense oligonucleotides as anticancer agents
AUTHOR(S): Herdewijn, P.; Saison-Behmoaras, E.; Van Aerschot, A.; Leserman, L.; Eritja, R.; Pfleiderer, W.
CORPORATE SOURCE: Katholieke Universiteit Leuven, Louvain, Belg.
SOURCE: Biomedical and Health Research (***1998***), 24(Cancer Research Supported under BIOMED 1), 182-189
CODEN: BIHREN; ISSN: 0929-6743
PUBLISHER: IOS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antisense oligonucleotides were developed with in vivo antitumoral activity. The ***cellular*** model which was selected for the study of the biol. activity of the modified oligonucleotides consists of a stable clone of the human mammary ***cell*** line HBL 100 transformed with Ha-ras DNA from a human bladder carcinoma ***cell*** line carrying a point mutation in codon 12. Optimization of the structure of oligonucleotides by chem. derivatization led to an antisense construct which inhibits ***cell*** growth at concn. (50 nM) which is 400 times lower than the concn. necessary for the unmodified antisense oligonucleotide to exert the same effect. In vivo studies in nude mice with local s.c. injections of the selected antisense oligonucleotide at the site of tumor growth confirmed the selective antisense effect which warrants further development of these constructs as antitumoral drugs.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 31 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:794980 HCAPLUS
DOCUMENT NUMBER: 130:24804
TITLE: Preparation of ***cyclohexanediol*** derivatives for use in the treatment or prevention of hyperproliferative skin diseases
INVENTOR(S): Bauer, Franz; Courtney, Lawrence F.
PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852894	A1	19981126	WO 1998-EP2762	19980512 <--

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK,
EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9876539	A1	19981211	AU 1998-76539	19980512 <--
EP 983221	A1	20000308	EP 1998-924303	19980512
EP 983221	B1	20020403		

R: DE, ES, FR, GB, IT

JP 2000512315	T2	20000919	JP 1998-549892	19980512
JP 3276375	B2	20020422		

PRIORITY APPLN. INFO.: EP 1997-108355 A 19970523
WO 1998-EP2762 W 19980512
OTHER SOURCE(S): MARPAT 130:24804
GI

/ Structure 2 in file .gra /

AB Cyclohexane-1,3-diol I was prepd. and formulated for use in the treatment
or prevention of hyperproliferative skin diseases, particularly psoriasis, basal ***cell*** carcinomas, disorders of keratinization and keratosis, and for reversing the conditions assocd. with photodamage. Thus, I was prepd. starting from [2-[(3R,5R)-3,5-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]cyclohexylidene]ethyl]diphenylphosphine oxide, (-)-citronellal, and tri-Et phosphonoacetate. Formulations for both oral and topical application were presented.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 32 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:371582 HCAPLUS
DOCUMENT NUMBER: 129:130861
TITLE: Phase I and pharmacokinetic study of D-limonene in patients with advanced cancer
AUTHOR(S): Vigushin, David M.; Poon, Grace K.; Boddy, Alan; English, Jacqueline; Halbert, Gavin W.; Pagonis, Christos; Jarman, Michael; Coombes, R. Charles
CORPORATE SOURCE: Department Medical Oncology, Cancer Research Campaign
Laboratories, Charing Cross Hospital, London, W6 8RF, UK
SOURCE: Cancer Chemotherapy and Pharmacology (***1998***), 42(2), 111-117
CODEN: CCPHDZ; ISSN: 0344-5704
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Patients with refractory solid tumors completed 99 courses of D-limonene
0.5-12 g/m2/day administered orally in 21-day cycles. Pharmacokinetics were analyzed by liq. chromatog./mass spectrometry. Breast cancer patients received 15 cycles of D-limonene at 8 g/m2/day. Intratumoral monoterpene levels were measured in 20% of the breast cancer patients (2/10). The max. tolerated dose was 8 g/m2/day; nausea, vomiting, and diarrhea were dose limiting. One partial response in a breast cancer patient on 8 g/m2/day was maintained for 11 mo; 3 addnl. patients with colorectal carcinoma had prolonged stable disease. There were no responses in the phase II study. Peak blood plasma concn. (Cmax) for D-limonene was 10.8-20.5 .mu.M. Predominant circulating metabolites were
perillic acid (Cmax 20.7-71), dihydroperillic acid (16.6-28.1), limonene-1,2-diol (10.1-20.7), uroterpenol (14.3-45.1 .mu.M), and an isomer of perillic acid. Both isomers of perillic acid, and cis and trans isomers of dihydroperillic acid were in urine hydrolates. Intratumoral levels of D-limonene and uroterpenol exceeded the corresponding plasma levels. Other metabolites were trace constituents in ***tissue*** . D-Limonene was well tolerated in cancer patients at doses which were supposed to have clin. activity.

L20 ANSWER 33 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:108138 HCAPLUS
DOCUMENT NUMBER: 128:192879
TITLE: Preparation of dimerized glucose or glucosamine derivatives as ***cell*** adhesion inhibitors
INVENTOR(S): Yuri, Masatoshi; Miyauchi, Hiroshi; Hayashi, Shoji; Tanaka, Masashi
PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10045793	A2	19980217	JP 1996-216839	19960729 <--

OTHER SOURCE(S): MARPAT 128:192879
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB (MAB)2X or [MA(BD)n]2X [M = Q1; R0 = H, OH, substituted amino; 1 of R2-R3
= .alpha.- or .beta.-L-fucopyranosyl; another = Q2; R4 = H, SO3H, PO3H2,
CH2CO2H, Q3; R5 = Me, CH2OH; B = C1-15 divalent group; A, D = O, CO2, NR6,
CONR6, NR6CO2, NR6CONR6, NR6C(S)O, NR6C(S)NR6; R6 = H, Me, Et, benzyl, Pr,
Ac, benzoyl; X = divalent ring; n = 1-10] or their salts, useful for treatment of inflammation, reperfusion injury, autoimmune diseases, and cancer metastasis, are prepd. Glucosamine deriv. Q4-Cl (R = Ac, R7 = Me)
(prepn. given, 1.26 g) was treated with 80 mg 1,3-bis(3-hydroxypropyloxy)benzene (I; R8 = H) in ClCH2CH2Cl in the presence of mol.
sieve 4A, Me2NCONMe2, and (CF3SO3)2Sn at room temp. for 12 h to give 578
mg ether, which was treated with MeONa in MeOH at room temp. for 36 h to
give 82% I.2Na (R8 = .beta.-Q4, R = R7 = H) (II). II inhibited adhesion of rsE-selectin with HL-60 ***cells*** with IC50 of 0.037 mM, vs. 0.20
mM, for monomeric glucosamine deriv.

L20 ANSWER 34 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:784513 HCAPLUS
DOCUMENT NUMBER: 128:94807
TITLE: Sensitivity Enhancement of Exciton Coupling by Fluorescence Detected Circular Dichroism (FDCD)
AUTHOR(S): Dong, Jian-Guo; Wada, Akio; Takakuwa, Takashi; Nakanishi, Koji; Berova, Nina
CORPORATE SOURCE: Department of Chemistry, Columbia University, New
York, NY, 10027, USA
SOURCE: Journal of the American Chemical Society (***1997***), 119(49), 12024-12025
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal

LANGUAGE: English
AB Exciton coupled CD characterized by split Cotton effects (couplets) is a nonempirical microscale method for detg. the abs. configurations or conformations of a wide variety of compds. The use of strongly absorbing and fluorescent chromophores enhances the CD sensitivity and enables handling of ng.apprx..mu.g scale material. Under favorable conditions, attachment of a prototype fluorescence detector to a regular JASCO-720 CD spectropolarimeter leads to a 50-100-fold sensitivity enhancement over conventional CD measurements to exciton split bisignate couplets. The enhanced sensitivity of FDCD was demonstrated with 1(S),2(S)-trans-***cyclohexanediol*** bis-(6-methoxy-2-naphthoate) (1), 1(R),2(R)-trans-***cyclohexanediol*** bis(2-naphthoate) (2), a steroidal 3.beta.,6.alpha.-bis-(2-anthroate) (3), and ouabagenin 1,3,19-tris-(2-naphthoate) (4), with fluorescence quantum yields of 0.64, 0.29, 0.24, and 0.29, resp. In the case of 2 the detection limit of exciton coupling by FDCD is .apprx.200 pg/mL using a std. 1 cm fluorescence ***cell*** . Based on an equation described by I. Tinoco et al., the fluorescence detected CD spectra were converted into conventional CD spectra with excellent agreement. The present examples of exciton coupling between 2 or 3 identical fluorophores demonstrate that FDCD provides a micro-scale tool for structural studies in which the sensitivity is increased 50 to 100-fold relative to conventional CD under favorable conditions.

L20 ANSWER 35 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:621356 HCAPLUS
DOCUMENT NUMBER: 127:290382
TITLE: Anaerobic degradation of cyclohexane-1,2-diol by a new Azoarcus species
AUTHOR(S): Harder, Jens
CORPORATE SOURCE: Max-Planck-Inst. Marine Mikrobiol., Bremen, D-28359, Germany
SOURCE: Archives of Microbiology (***1997***), 168(3), 199-204
CODEN: AMICCW; ISSN: 0302-8933
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A bacterium, strain 22Lin, was isolated on cyclohexane-1,2-diol as sole electron donor and C source and NO3- as electron acceptor. ***Cells*** are motile rods and are facultatively anaerobic. A phylogenetic comparison based on the total 16S rRNA gene sequence allowed the assignment of the isolate to the genus Azoarcus. Cyclohexanol, cyclohexanone, cyclohexane-1,3-diol, and cyclohexane-1,3-dione, which are oxidized by a different denitrifying strain, did not support denitrifying growth of isolate 22Lin. Cyclohexanol (I50 = 37 .mu.M) and cyclohexanone (I50 = 28 .mu.M) inhibited growth on cyclohexane-1,2-diol, but not on acetate. NAD was reduced by crude exts. of strain 22Lin in the presence of cyclohexane-1,2-dione, but not in the presence of cyclohexanone or cyclohexane-1,3-dione. The formation of 6-oxohexanoate from cyclohexane-1,2-dione and of adipate during NAD redn. suggests that strain 22Lin possesses a C-C hydrolase that transforms cyclohexane-1,2-dione to 6-oxohexanoate. This pathway was once obsd. in an aerobic pseudomonad that was lost and could not be reisolated. Here, the application of strictly anoxic enrichment conditions enabled the reisolation of another strain (22Lin) that uses this pathway.

L20 ANSWER 36 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:342195 HCAPLUS
DOCUMENT NUMBER: 126:317567
TITLE: Carbohydrate conjugates of piperidine and pyrrolidine derivatives as leukocyte adhesion inhibitors
INVENTOR(S): Toepfer, Alexander; Kretzschmar, Gerhard; Schoelkens, Bernward; Klemm, Peter; Huels, Christoph; Seiffge, Dirk
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Ger. Offen., 16 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19537334	A1	19970410	DE 1995-19537334	19951009 <--
EP 787739	A1	19970806	EP 1996-115414	19960926 <--
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 5739300	A	19980414	US 1996-726142	19961004 <--
AU 9667997	A1	19970417	AU 1996-67997	19961007 <--
CN 1150155	A	19970521	CN 1996-113073	19961007 <--
ZA 9608470	A	19970409	ZA 1996-8470	19961008 <--
CA 2187392	AA	19970410	CA 1996-2187392	19961008 <--
NO 9604268	A	19970410	NO 1996-4268	19961008 <--
JP 09110834	A2	19970428	JP 1996-267002	19961008 <--
BR 9605024	A	19980630	BR 1996-5024	19961008 <--

PRIORITY APPLN. INFO.: DE 1995-19537334 A 19951009
OTHER SOURCE(S): MARPAT 126:317567
GI

/ Structure 3 in file .gra /

AB Conjugates of carboxylated piperidine or pyrrolidine derivs. linked to a pyranose, furanose or polyol via a linear or cyclic spacer were prepd. for use as selectin receptor antagonists. Thus, (1R,2R)-trans-1,2-***cyclohexanediol*** was treated with thioethyl 2,3,4-tri-O-benzyl-.beta.-L-fucopyranoside, followed by Et 4-piperidinecarboxylate, and debenzylation to give the glycoside I. At 10 mg/kg i.v. in rats I caused 81% inhibition of leukocyte adhesion to blood vessel walls.

L20 ANSWER 37 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:71518 HCAPLUS
DOCUMENT NUMBER: 124:112247
TITLE: Stable antimicrobial dialdehyde composition and methods of use
INVENTOR(S): Donovan, Daniel J.; Mcsherry, David D.; Fredell, Dale L.
PATENT ASSIGNEE(S): Ecolab Inc., USA
SOURCE: U.S., 19 pp. Cont.-in-part of U.S. Ser. No. 887,312, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5480643	A	19960102	US 1993-65289	19930706 <--
US 5158778	A	19921027	US 1991-777782	19911016 <--
WO 9501724	A1	19950119	WO 1994-US3688	19940331 <--
W: AU, CA, JP, NZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9471364	A1	19950206	AU 1994-71364	19940331 <--

PRIORITY APPLN. INFO.: US 1991-777782 19911016
US 1992-887312 19920522
US 1993-65289 19930706
WO 1994-US3688 19940331
AB A stable, solid or semi-solid, antimicrobial compn. is provided comprising a dialdehyde antimicrobial agent such as glutaraldehyde, and a carbohydrate such as a sugar or a polyol such as a sugar alc. The compn. can be employed to ***preserve*** , sanitize, disinfect, or sterilize a contaminated surface or area. The compn. can also be combined with an absorbing agent to produce a moisture absorbent antimicrobial compn. which can be used to absorb and disinfect biol. spills such as body fluid spills.

L20 ANSWER 38 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:761497 HCAPLUS

DOCUMENT NUMBER: 123:170190
TITLE: Preparation of monosaccharide or oligosaccharide derivatives containing fucose and/or (di)glutamic acid or lysine with specific binding affinity to adhesion molecule ELAM-1
INVENTOR(S): Horie, Kazutoshi; Sakagami, Masahiro; Kuramochi, Kentaro; Azuma, Kunio; Myoshi, Shiro; Yamada, Harutami
PATENT ASSIGNEE(S): Dds Kenkyusho Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06306092	A2	19941101	JP 1994-54562	19940228 <--

PRIORITY APPLN. INFO.: JP 1993-63402 19930226
OTHER SOURCE(S): MARPAT 123:170190
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. (I; F, Fi = monosaccharide selected from sialic acid, uronic acid, galactose, glucose, mannose, hexosamine, ribose, and rhamnose or di- to tetrasaccharide consisting of these monosaccharides or their derivs.; n, m = 0-10; provided that when m = 0, Fi = H; T1, T2i = bond, NHCO, NHCO2, O2CNH, NHCONH, CONH, CO2, O2C, O; R1, R2, R3ai, R4ai, R5i, R6 = H, optionally amidated NH2, optionally etherified or esterified OH, optionally esterified or amidated CO2H, optionally amidated, etherified, or esterified C1-3 hydroxy- or aminoalkyl; i = 0, 1,2; or R6 and R1 or R3ai represents C1-4 n-alkylene or together with the bonded C-chain forms a satd. 5- to 7-membered ring; I = 0-4; or R4ai, R5i = Q; wherein T3i, T4ij = group defined in T1; R10, R20, R30bij, R40bij, R50ij, R60 = group defined in R1 and R2; j = 0,1,2; p = 0-10; Fij = group defined in F; provided that when p = 0, Fij = H; at least one of F, Fi, and Fij = fucose or an oligosaccharide having fucose at the reducing terminus) are prepd. These compds. specifically bind to endothelial leukocyte adhesion mol. 1 (ELAM-1, selectin-1) expressed at inflammation sites of vascular endothelial ***cells*** , are useful in a drug delivery system which can efficiently and specifically deliver an antiinflammatory agent to the inflammation sites, and also may be used as ***cell*** recognition elements since they contain sugars such as fucose in the side chains. Thus, Boc-Glu-OH was treated with N-hydroxysuccinimide and DCC in MeCN at room temp. for 4 h and condensed with 6-aminohexyl 2,3,4-tri-O-benzyl-L-fucopyranoside p-toluenesulfonate to give, after hydrogenolysis over 10% Pd-C, a title compd. [II; R = Me3CO2C (Boc)] (III). III and II (R = Q1) at 10 mM in vitro competitively inhibited 50 and 80%, resp., (ELAM-1)-mediated intercellular adhesion between HL-60 ***cells*** and HUVEC ***cells*** on the surface of which ELAM-1 was induced by recombinant human interleukin-1.beta..

L20 ANSWER 39 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:456875 HCAPLUS
DOCUMENT NUMBER: 121:56875
TITLE: Dynamics of Five-Membered Rings in the Solid State by NMR Spectroscopy
AUTHOR(S): Lambert, Joseph B.; Johnson, Suzanne C.; Xue, Liang
CORPORATE SOURCE: Department of Chemistry, Northwestern University, Evanston, IL, 60208-3113, USA
SOURCE: J. Am. Chem. Soc. (***1994***), 116(14), 6167-74
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The carbon-13 NMR spectra have been investigated in the solid state for a no. of fundamental five-membered rings and some analogous six-membered rings. Several of these rings ***freeze*** into a plastic phase, whose NMR spectrum retains the symmetry of the liq.-phase spectrum. At the plastic-to-nonplastic transition, these spectra can undergo decoalescence to spectra characteristic of the symmetry and structure within the solid. Motion within the solid also broadens peaks when the motional frequency is comparable to the spin-lock precessional frequency. In the nonplastic phase, cyclopentanol exists in at least two sites, and possibly more, which probably result from hydrogen-bonded aggregation. Cyclohexanol may exist in two such sites. Cyclopentanone exists in two equally populated sites. 1-Methylcyclopentanol and trans-1,2-***cyclohexanediol*** exist either in two equally populated sites or as a single, unsym. form. Cyclohexanone, trans-1,2-cyclopentanediol, and tetrahydrothiophene 1-oxide appear to exist in single forms. Sulfolane exists in two, unequally populated sites.

L20 ANSWER 40 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:244153 HCAPLUS
DOCUMENT NUMBER: 120:244153
TITLE: Preparation of optically active cyclohexanediols and (+)-.alpha.-hydroxycycloheptanone by an enzyme catalyzed stereoinversion/oxidation process
AUTHOR(S): Carnell, Andrew J.; Iacazio, Gilles; Roberts, Stanley M.; Willetts, Andrew J.
CORPORATE SOURCE: Dep. Chem., Univ. Exeter, Exeter, EX4 4QD, UK
SOURCE: Tetrahedron Lett. (***1994***), 35(2), 331-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:244153
GI

/ Structure 4 in file .gra /

AB (.+-.)-Trans and cis Cyclohexane-1,2-diols undergo a double stereoinversion process to give trans-(S,S)-cyclohexane-1,2-diol on incubation with the fungus C. cassiicola. Treating substituted diols I (.alpha.-Me, .beta.-Me) under these conditions gave the corresponding diols II without changing the Me config. Treating trans-1,2-cycloheptanediol gave only cycloheptanone III.

L20 ANSWER 41 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:86074 HCAPLUS
DOCUMENT NUMBER: 120:86074
TITLE: Conditioning shampoos containing anionic surfactant, conditioning agents, and emulsifying agents
INVENTOR(S): Bergmann, Wolfgang
PATENT ASSIGNEE(S): Helene Curtis, Inc., USA
SOURCE: Eur. Pat. Appl., 41 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 566049	A1	19931020	EP 1993-105901	19930410 <--
EP 566049	B1	19960724		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 5275761	A	19940104	US 1992-869538	19920415 <--
ZA 9301613	A	19931115	ZA 1993-1613	19930305 <--
CA 2092284	AA	19931016	CA 1993-2092284	19930323 <--
AU 9335503	A1	19931021	AU 1993-35503	19930324 <--
AU 667515	B2	19960328		
IL 105250	A1	19970610	IL 1993-105250	19930401 <--
AT 140614	E	19960815	AT 1993-105901	19930410 <--
ES 2090756	T3	19961016	ES 1993-105901	19930410 <--
NO 9301375	A	19931018	NO 1993-1375	19930414 <--
JP 06080539	A2	19940322	JP 1993-87585	19930414 <--
JP 2559973	B2	19961204		
US 5358667	A	19941025	US 1993-152251	19931112 <--

US 5456863 A 19951010 US 1994-278052 19940720 <--
PRIORITY APPLN. INFO.: US 1992-869536 19920415
US 1992-869538 19920415
OTHER SOURCE(S): MARPAT 120:86074
AB Conditioning shampoos comprise (1) anionic cleansing surfactants such as
an alkyl ether sulfate and an alkyl sulfate, (2) water-insol. conditioning agents such as siloxanes and hydrocarbons, (3) emulsifying compns. contg.
polyhydric compds. and hydrophilic quaternary ammonium compds., (4) suspending agents, and (5) carriers. The compns. effectively resist phase sepn., clean the hair, and impart improved dry and wet stage conditioning properties to the hair in a single application. For example, a shampoo contained Na trideceth carboxylate 0.375, glycerin 3.00, dimethicone 4.125, ammonium lauryl sulfate 18.00, fatty alc. ether sulfosuccinate 4.00, Stabileze 06 0.40, citric acid 0.35, cocamide DEA 4.00, fragrance 0.40, ammonium xylene sulfonate 3.00, ***preservatives*** q.s., dyes q.s., and water to 100%.

L20 ANSWER 42 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:530627 HCAPLUS
DOCUMENT NUMBER: 113:130627
TITLE: Microbiological transformations 15. The enantioselective microbiological Baeyer-Villiger oxidation of alpha-substituted cyclopentanones
AUTHOR(S): Alphand, Veronique; Archelas, Alain; Furstoss, Roland
CORPORATE SOURCE: Lab. Chim. Org. Bioorg., Fac. Sci. Luminy, Marseille, 13288/9, Fr.
SOURCE: Biocatalysis (***1990***), 3(1-2), 73-83
CODEN: BIOCED; ISSN: 0886-4454
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two strains of Acinetobacter were studied for enantioselective Baeyer-Villiger-type oxidn. of racemic .alpha.-substituted cyclopentanones. This allows a 1-step synthesis of various .delta.-lactones with optical purities of .ltoreq.97% using whole-***cell*** procedures. Tetraethylpyrophosphate and 1,2-***cyclohexanediol*** were used to enhance the yields. The obtained (S)-lactones are of high interest as readily accessible chirons as well as to the flavor industry.

L20 ANSWER 43 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:457360 HCAPLUS
DOCUMENT NUMBER: 113:57360
TITLE: Chemo-enzymic synthesis and characterization of L-tryptophan selectively 13C-enriched or hydroxylated in the six-membered ring using transformed Escherichia coli ***cells***
AUTHOR(S): Van den Berg, E. M. M.; Jansen, F. J. H. M.; De Goede, A. T. J. W.; Baldew, A. U.; Lugtenburg, J.
CORPORATE SOURCE: Dep. Org. Chem., Leiden Univ., Leiden, 2300 RA, Neth.
SOURCE: Recl. Trav. Chim. Pays-Bas (***1990***), 109(4), 287-97
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:57360
AB L-(3a-13C)- and L-(6-13C)tryptophan were synthesized from simple labeled
compds. via a single reaction scheme based on the conversion of 1,3-cyclohexanedione to indole. The labeled indoles were converted in 1 step to the corresponding L-tryptophans using transformed E. coli ***cells*** with large amts. of tryptophan synthetase. The same reaction scheme was used for the synthesis of 4- and 7-indolol. These hydroxyindoles together with 5-indolol were converted to 4-, 7-, and 5-hydroxy-L-tryptophan, resp., using the E., coli ***cells*** . The latter compd. is the immediate precursor of the neurotransmitter serotonin. 7-Indolol was the only indole deriv. converted faster than unsubstituted indole by tryptophan synthetase. With the prepn. of L-(3a-13C)- and L-(6-13C)tryptophan, the series of indoles and L-tryptophans with a stable isotope (13C, 15N, or 2H) in the arom. ring was completed. The NMR parameters of these monoisotopically labeled systems are discussed.

L20 ANSWER 44 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:217539 HCAPLUS
DOCUMENT NUMBER: 112:217539
TITLE: Preparation of N-[4-[3-(2-aminopyrido[2,3-d]pyrimidin-6-yl)propyl]benzoyl]glutamates and analogs as antitumor agents
INVENTOR(S): Nomura, Hiroaki; Akimoto, Hiroshi; Miwa, Tetsuo
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 340905	A1	19891108	EP 1989-303177	19890330 <--
EP 340905	B1	19931208		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 02028162	A2	19900130	JP 1989-28120	19890206 <--
JP 2830008	B2	19981202		
US 4946846	A	19900807	US 1989-329374	19890327 <--
AT 98244	E	19931215	AT 1989-303177	19890330 <--
DK 8901585	A	19891002	DK 1989-1585	19890331 <--
DK 169703	B1	19950116		
NO 8901369	A	19891002	NO 1989-1369	19890331 <--
NO 169842	B	19920504		
NO 169842	C	19920812		
HU 51620	A2	19900528	HU 1989-1614	19890331 <--
HU 203102	B	19910528		
CN 1036567	A	19891025	CN 1989-101906	19890401 <--
CN 1024007	B	19940316		
HU 210920	B	19950928	HU 1990-8278	19901214 <--
US 5223620	A	19930629	US 1992-830884	19920204 <--

PRIORITY APPLN. INFO.: JP 1988-82043 19880401
JP 1989-28120 19890206
US 1989-329374 19890327
EP 1989-303177 19890330
HU 1989-1614 19890331
US 1990-521572 19900510
OTHER SOURCE(S): CASREACT 112:217539; MARPAT 112:217539
GI

/ Structure 5 in file .gra /

AB The title compds. (I; A = optionally hydrogenated benzene or pyridine ring; R = glutamate residue; R1-R4 = H, F, alkyl; X = NH2, OH) were prepd.
Thus, R5CH2CH[CH(OMe)2](CH2)3C6H4(CO2CMe3)-4 [II; R5 = CH(CN)2] (prepn.
given) was cyclocondensed with (H2N)C:NH.HCl to give II (R5 = 2,4,6-triaminopyrimidin-5-yl) which was stirred 18 h with CF3CO3H in CH2Cl2 and the product stirred 66 h with H2NCH(CO2Et)CH2CH2CO2Et.HCl in
DMF contg. (PhO)2P(O)N3 and Et3N to give, after sapon., the title compd.
III which had IC50 of <0.0025 and 10.0 .mu.g/mL for inhibition of thymidine uptake by HL-60 leukemia ***cells*** and for growth of human
embryonic lung fibroblast ***cells*** , resp.

L20 ANSWER 45 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:193544 HCAPLUS
DOCUMENT NUMBER: 112:193544
TITLE: In vitro studies of chemical effects on gap-junctional communciation: role of biotransformation in toxicant detection and use of assays in risk assessment
AUTHOR(S): Malcolm, A. Russell; Mills, Lesley J.; Robson, Deborah L.
CORPORATE SOURCE: Environ. Res. Lab., Environ. Prot. Agency, Narragansett, RI, 02882, USA
SOURCE: In Vitro Toxicol. (***1990***), 3(1), 61-7
CODEN: IVTOE4; ISSN: 0888-319X

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Phenol, a weak promoter of mouse skin tumors, failed to inhibit gap-junctional communication between Chinese hamster V79 lung fibroblasts;
however, five metabolites of phenol suppressed gap-junctional communication in a concn.-related manner. Sodium cyclamate, a possible promoter of bladder cancer in rats, weakly inhibited gap-junctional communication in the same assay; however, its 3 metabolites were stronger
inhibitors than sodium cyclamate. Thus, some metabolic products may show
activity when parent compds. do not or may show greater activity than parent compds. The use of assays incapable of metabolizing test compds. permits distinction between parent compd. activity and that of metabolites tested sep. This may allow identification of groups at special risk because of differences in the metab. of parent compds. For example, humans and test animals capable of metabolizing cyclamate may be at higher
risk for tumor development than individuals without such capacity.

L20 ANSWER 46 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:583584 HCAPLUS
DOCUMENT NUMBER: 101:183584
TITLE: Effect of DONU, a new water-soluble derivative of nitrosourea, on human tumors serially transplanted into nude mice
AUTHOR(S): Asanuma, Fumiki; Kubota, Tetsuro; Hanatani, Yuji; Tsuyuki, Ken; Nakada, Munehiko; Ishibiki, Kyuya; Abe, Osahiko
CORPORATE SOURCE: Sch. Med., Keio Univ., Tokyo, Japan
SOURCE: J. Jpn. Soc. Cancer Ther. (***1982***), 17(8), 2035-43
CODEN: NGCJAK; ISSN: 0021-4671
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
GI

/ Structure 6 in file .gra /

AB 2-((2-Chloroethyl)nitrosoamino)carbonylamino-1,3-***cyclohexanediol***
(DONU)(I) [92605-80-6] (10 mg/kg i.v.) caused marked regression of human
undifferentiated breast carcinoma and poorly differentiated colon adenocarcinoma tumors transplanted in mice, but had no effect on other tumors (stomach cancer, cholangiocarcinoma, etc.). The sensitive adenocarcinoma tumors showed rapid disappearance of I when tumor ***tissue*** pharmacokinetics were examd. A correlation between tumor
sensitivity to I and pharmacokinetics of I is suggested.

L20 ANSWER 47 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:175167 HCAPLUS
DOCUMENT NUMBER: 100:175167
TITLE: Microcalorimetric analysis of periodate-diols reactions in dilute aqueous solution. I. Outline of methods and preliminary results
AUTHOR(S): Crescenzi, Vittorio; Gamini, Amelia; Cesaro, Attilio; Delben, Franco; Paoletti, Sergio
CORPORATE SOURCE: Ist. Chim. Fis., Univ. Roma "La Sapienza", Rome,
I-00185, Italy
SOURCE: Gazz. Chim. Ital. (***1983***), 113(7-8), 387-92
CODEN: GCITA9; ISSN: 0016-5603
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The use of com. batch- and flow-type microcalorimeters, based on the heat-leakage twin- ***cells*** principle, for studying kinetic processes was investigated with two purposes. The first was to assess the reliability of calorimetric data in deriving rate consts. This point was confirmed by comparing the calorimetric data with those obtained for the same system by means of optical methods. The second goal was the study of
the kinetics and thermodn. of the reaction of periodate with vicinal diols in complex structures such as those of polysaccharides. The data presented are limited to two preliminary examples of the application of microcalorimetry to the splitting reaction of trans-1,2-***cyclohexanediol*** and of carboxymethylamylose at low degrees of substitution, with the emphasis on the exptl. approach.

L20 ANSWER 48 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:48357 HCAPLUS
DOCUMENT NUMBER: 98:48357
TITLE: Microsomal 4-vinylcyclohexene monooxygenase and mutagenic activity of metabolic intermediates
AUTHOR(S): Gervasi, P. G.; Abbondandolo, A.; Citti, L.; Turchi, G.
CORPORATE SOURCE: Ist. Mutagen. Differ., CNR, Pisa, 56100, Italy
SOURCE: Ind. Environ. Xenobiotics, Proc. Int. Conf. (***1981***), Meeting Date 1980, 205-10. Editor(s): Gut, Ivan; Cikrt, Miroslav; Plaa, Gabriel L. Springer: Berlin, Fed. Rep. Ger.
CODEN: 48RKAL
DOCUMENT TYPE: Conference
LANGUAGE: English
GI

/ Structure 7 in file .gra /

AB The main 4-vinyl-1-cyclohexene (I) [100-40-3] metabolite formed in mice
liver microsomes after incubation for 10 min was 4-vinylcyclohexane-1,2-diol (II) [31646-64-7]. II attained max. concn. after 10 min.
4-vinyl-1,2-epoxycyclohexane (III) [106-86-5] showed max. formation after
3 min of incubation. 4-vinyl-1-cyclohexene dioxide (IV) [106-87-6] was found only in trace amts. 4-ethyleneoxycyclohexane-1,2-diol (V) [45895-09-8] was not found but should be formed either from enzymic hydrolysis of IV or further 4-vinylcyclohexene monooxygenase [84084-10-6]
action on II. III and V were not mutagenic at different doses on Chinese hamster V-79 ***cells*** , but showed only cytotoxic effects up to 20 mM. On the contrary, IV was able to increase (.apprx.10 times) the forward mutation rate of V-79 ***cells*** . Since IV is found only in trace amts. [possibly because of its rapid hydrolysis to 4-(1,2-dihydroxyethyl)-1,2- ***cyclohexanediol***], there appears to be little or no mutagenic activity.

L20 ANSWER 49 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1969:488328 HCAPLUS
DOCUMENT NUMBER: 71:88328
TITLE: Side effects of reaction media in histochemical blocking procedures
AUTHOR(S): Staple, P. H.
CORPORATE SOURCE: Sch. of Dent., State Univ. of New York, Buffalo, N.
Y., USA
SOURCE: Histochem. J. (***1969***), 1(4), 377-81
CODEN: HISJAE
DOCUMENT TYPE: Journal
LANGUAGE: English
AB At some sites in rat abdominal skin and human gingiva, 0.2N NaOH, the reaction medium for 1,2- ***cyclohexanediol*** , intensified the Sakaguchi reaction, staining with Pauly's reagent, and binding of anionic dye at pH 6.4. At other sites these reactions were reduced. At all sites in rat skin 0.2N NaOH slightly reduced staining after the ninhydrin-Schiff procedure. There were also alterations in staining with cationic dyes. Therefore, 0.2N NaOH may rupture linkages between polycationic residues of
proteins and polyanions demonstrable by Alcian Blue. The blockade produced by acetic anhydride-pyridine mixts. was stable in the alk. conditions required for staining with Pauly's reagent. Pretreatment with pyridine alone reduced ***tissue*** binding of anionic dyes.

L20 ANSWER 50 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1969:103995 HCAPLUS
DOCUMENT NUMBER: 70:103995
TITLE: ***Cryoprotectants*** for Crithidia fasciculata stored at -20.deg.. Trypanosoma gambiense and T. conorhini
AUTHOR(S): O'Connell, Kathleen M.; Hutner, S. H.; Fromentin,

Huguette; Frank, Oscar; Baker, Herman
CORPORATE SOURCE: Haskins Lab., New York, N. Y., USA
SOURCE: J. Protozool. (***1968***), 15(4), 719-24
CODEN: JPROAR
DOCUMENT TYPE: Journal
LANGUAGE: English
AB ***Cryoprotectants*** were tested in both complex and semidefined media for the trypanosomatid C. fasciculata. Near log-phase or end-of-log-phase cultures were frozen for 24-48 hrs. at .apprx. -20.degree., then warmed in air to room temp. Immediate motility was correlated with viability. The best protectant of the 83 tested was glycerol at .apprx.10% (wt./vol.). Survival without ***cryoprotectant*** was rare. Outstanding ***cryoprotectants*** (perhaps also useful solvents for drugs poorly sol. in water) were: ethylene glycol, diethylene glycol, 1,2,4-butanetriol, 1,4-***cyclohexanediol*** , dimethyl sulfoxide, propylene glycol, N-acetylethanolamine. Several sugars were active, e.g., D-arabinose, sucrose, and sorbitol. Trypanosomes tolerated ***cryoprotectants*** much less; tolerance was better in growth media than in suspension media. T. gambiense was grown in blood-enriched media + 2-2.5% glycerol, suspended in 20% (wt./vol.) glycerol, then frozen; this permitted 3-week survival. T. conorhini survived 4 weeks after growth in media contg. glycerol 2.5% + ethylene glycol 4% + rutin 1.0 mg./ 100 ml.

L20 ANSWER 51 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1967:443383 HCAPLUS
DOCUMENT NUMBER: 67:43383
TITLE: Synthesis of esters of .alpha.,.alpha.-dimethyl alkanoic acids
AUTHOR(S): Zharova, E. Ya.; Puzitskii, K. V.; Rapoport, I. B.; Eidus, Ya. T.; Velizar'eva, N. I.
SOURCE: Neftekhimiya (***1967***), 7(1), 92-6
CODEN: NEFTAH
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Neo acids (.alpha.,.alpha.-dimethyl acids) were prepd. by carboxylation of olefins or monovalent satd. alcs. with CO at 40.degree./30-50 atm. in the presence of H2SO4. Homologs C13 (b17 165-200.degree.) and C16 (b10 165-98.degree.) were prepd. from tetramers or pentamers of propylene. Neo acids were then converted to the corresponding acid chlorides in 80-90% yield by adding excess SO2Cl2 dropwise at 76-9.degree.. The prepd. neo acids have the following b.p./mm., d20, and n20D: C5, 47-9.degree./10, 0.9676, 1.4312; C8, 57-8.degree./10, 0.9571, 1.4349; C9, 74-6.degree./10, 0.9497, -; C10, 90-1.5.degree./10, 0.9435, 1.4422; C11, 125-6.degree./21, 0.9347, 1.4443. Alcs. were acylated with acid chlorides at 50-100.degree., HCl was removed at 100.degree. with N, the products were washed with NaOH and Na2CO3 solns., then with water, and fractionated.
The yields were 85-95% with respect to acid chloride and 70-90% with respect to neo acid. Crude 1,3- ***cyclohexanediol*** esters contain monoesters and 65% diesters. Monoesters, ***freezing*** between -63 and -49.degree., have the following b.p. at 1-2 mm., n20D, and viscosity at 50.degree. in centistokes: C7, 105-68.degree., 1.4539, 8.2; C8, 120-80.degree., 1.4572, 6.4; C9, 135-92.degree., 1.4612, -; C10, 137-98.degree., 1.4608, 10.2; C11, 106-209.degree., 1.4612, 10.0. Analogously, the same values of diesters ***freezing*** between -46 and -40.degree. are as follows: C7, 168-70.degree., 1.4535, 9.5; C8, 180-1.degree., 1.4549, 11.2; C9, 192-4.degree., 1.4579, 15.9; C10, 198-200.degree., 1.4587, 21.8; C11, 209-11.degree., 1.4600, 24.4. These characteristics are further given for the esters of neo acids and polyols: C8, (CH2)6(OH)2 178-80.degree., 1.4430, 7.0; C7, (CH2)10(OH)2 192-4.degree., 1.4452, 8.6; C8, (CH2)10(OH)2 202-5.degree., 1.4481, 10.0; C7, trimethylolpropane, 213-24.degree., 1.4490-1.4509, 18.9-22.9. Diol esters ***freeze*** at the temp. between -63 and -69.degree., the triol ester at -45.degree.. The esters of 2-ethyl-1-hexanol and neo acids (***freezing*** at -67.degree. or lower) have the following characteristics (ordered in the above sequence): C7, 112-14.degree., 1.4330, 2.0; C9, 114-16.degree., 1.4365, 2.4; C13, 154-60.degree., 1.4460, 5.7; C16, 156-66.degree., 1.4510, 7.0. Mixts. of esters of C7 neo acid and 2-ethyl-1-hexanol and 1,3- ***cyclohexanediol*** have improved phys. properties. Thus, the mixt. of these esters in the ratio 1:4 ***freezes*** at -63.degree. and has visocisity 6.06 centistokes at 50.degree..

L20 ANSWER 52 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1959:67568 HCAPLUS
DOCUMENT NUMBER: 53:67568
ORIGINAL REFERENCE NO.: 53:12232d-f
TITLE: The order of addition of lithium to biphenyl
AUTHOR(S): Egorov, Yu. P.; Kaplan, E. P.; Letina, Z. I.; Shlyapochnikov, V. A.; Petrov, A. D.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow
SOURCE: Zhur. Obshchei Khim. (***1958***), 28, 3258-62
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Examn. of ultraviolet and infrared spectra of 1-phenylcyclohexene (by dehydration of 1-phenylcyclohexanol with AcOH-H2SO4; b5 114.degree., n20D 1.5679), 3-phenylcyclohexene (hydrogenation of hydroquinone over Ni in dimethylcyclohexane gave 1,4- ***cyclohexanediol*** , which distd. from HBr gave 1,4-dibromocyclohexane, which was chilled to ***freeze*** out the cis isomer, b5 80.degree., n20D 1.5408, which with PhMgBr gave the 3-phenylcyclohexene, b4 85.degree., n20D 1.5370), phenyl-1,5-cyclohexadiene (by treatment of 53 g. 1-phenylcyclohexene with 55 g. Br2 in Et2O 2 days; m. 54-55.degree.), phenylcyclohexane and the dihydrobiphenyl formed through the Li deriv. of Ph2 (to 40 g. Ph2 in 300 ml. Et2O was added 4 g. Li and some glass beads; the whole was shaken 100 hrs. and treated with EtOH yielding dihydrobiphenyl, b4 85-86.degree., f.p. -5.degree. to -6.degree., n20D 1.5603, d20 0.9925) showed that the addn. of Li to Ph2 occurs not in the 1,4-positions (Schlenk, et al., C.A. 22, 4493) but in the 3,6-positions. The typical spectra are reproduced.

L20 ANSWER 53 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1948:2508 HCAPLUS
DOCUMENT NUMBER: 42:2508
ORIGINAL REFERENCE NO.: 42:521b-c
TITLE: The hydrogen bond. II. Determination of configurations of some cis-trans isomers by means of ***cryoscopic*** data
AUTHOR(S): Yuan, Han-ching
SOURCE: J. Chinese Chem. Soc. (***1947***), 15, 102-6
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. J. Chinese Chem. Soc. 7, 76(1940). ***Cryoscopic*** data on 2 forms of .beta.-chlorocrotonic acid and on 2 forms of 1,2-***cyclohexanediol*** have been obtained and applied to confirm the configurations of these substances. The results afford further examples of the application of H bond theory in stereochemistry.

L20 ANSWER 54 OF 54 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1932:208 HCAPLUS
DOCUMENT NUMBER: 26:208
ORIGINAL REFERENCE NO.: 26:13h-i,14a
TITLE: X-ray investigation of certain derivatives of cyclohexane. V. .alpha.- and .gamma.-1,2-***Cyclohexanediol*** , .beta.-1,4-***cyclohexanediol*** and .beta.-1,4-***cyclohexanediol*** diacetate
AUTHOR(S): White, T. N.
SOURCE: Z. Krist. (***1931***), 80, 5-17
DOCUMENT TYPE: Journal
LANGUAGE: English
AB .alpha.-1,2- ***Cyclohexanediol*** is orthorhombic, with symmetry of space group Vh15(D2hp.gamma..alpha..beta.). There are 8 mols. C6H10(OH)2 in the unit ***cell*** , for which a = 7.62 A.U., b = 8.55 A. U. and c = 19.57 A. U , d25 = 1.182. .gamma.-1,2- ***Cyclohexanediol*** (designated as the .gamma.-isomer because it does not agree with data concerning the .beta.-isomer) monoclinic prismatic, a:b:c: = 1.954:1:0.716, .beta. = 103.9.degree., a = 19.13 A. U., b = 9.92 A. U., c. = 7.23 A. U., d24 = 1.147, 8 mols. in unit ***cell*** , space group C2h6(C2hb.alpha.1). .beta.-1,4- ***Cyclohexanediol*** , monoclinic prismatic, a:b:c = 0.293:1:0.339, .beta. = 96.degree., a = 6.32 A.U., b = 21.2 A.U., c = 7.27 A. U., d20 = 1.18, 6 mols. in unit ***cell*** , space group C2h5. .beta.-1,4- ***Cyclohexanediol*** diacetate,

monoclinic prismatic, a:b:c = 2.344:1:1.168, .beta. = 107.4.degree., a = 13.56 A.U., b = 5.83 A.U., c = 6.72 A. U., d (approx.) 1.18, 2 mols. in unit ***cell*** , space group C2h5.